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AMERICAN MEDICO-SURGICAL BULLETIN

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AND SCIENCE

ISSUED EVERY SATURDAY

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WILLIAM HENRY PORTER, M.D.

ASSOCIATE EDITOR

EGBERT H. GRANDIN, M.D.

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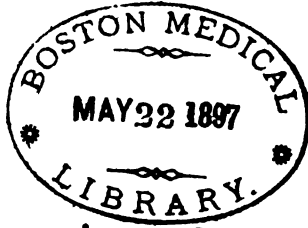
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Nos. 1 and 2

THE BULLETIN A WEEKLY

As a further step in its onward march this journal has transformed into a weekly, appearing hereafter every Saturday.

This is only in line with the many progressive features recorded by this enterprise during the past eight years. There has been a constant development and improvement in all departments from the very day of its conception. At no time was there a self-contented standstill; and in view of the high aims guiding and urging us in this journalistic work we may safely promise that there will be made also in the future such further extensions and improvements as the evolution of science and practice may suggest.

Aside from the change of issue just stated, there will be noted an enlargement of size, which we trust will meet with hearty approval.

As in the past, so in the future the editorial office of this publication will have absolute control of its pages and will be independent of all outside influences, and especially will it be above all business interests. The various departments will, during the current year, be further built out. Our complete reports of the meetings of the New York Academy of Medicine, during the last year, have met with such universal recognition that we have determined to continue the same.

The subscription price of THE BULLETIN for the fifty-two issues has been placed at \$4.

THE PUBLISHERS.

THE THERAPEUTIC VALUE OF DIPHThERIA ANTITOXIN

UNTIL quite recently a diagnosis of diphtheria was accepted only when a necrosis of a mucous membrane was demonstrable.

Many affections of the fauces which are now looked upon as diphtheria were previously classed as insignificant affections, disappearing after the simplest form of treatment. This change of classification was brought about by the almost universal acceptance of the bacillus of diphtheria as the chief etiological factor. While a full acceptance of the Löffler bacillus as the distinguishing feature of true diphtheria greatly simplifies the etiology of pseudo-membranous affections, such acceptance utterly invalidates our old standard of comparison, so far as statistics are concerned. It is quite well known that a necrosis of the mucous membrane exists without the slightest trace of the Löffler bacillus; *e.g.*, in the fauces, colon, rectum, bladder, uterus, etc. On the other hand, this organism may be present without the coexistence of any pathological lesion.

The Löffler bacillus is very peculiarly situated. It appears to have a prototype which differs from it in one respect only, namely, in virulence. According to Abbott, however, virulence may be generated even in this prototype. In fact, the virulence of the true diphtheria bacillus varies greatly. When cultivated in nutrient bouillon, and subsequently injected into the tissues of lower animals, death may result at any time from 24 hours to 7 days after injection, provided the culture has been grown under favorable conditions, and was virulent at the outset. But if the growth has taken place at 40° C., it loses its virulence entirely. This makes it clear that more than 24 hours are necessary to make a diagnosis from cultures alone.

Thus changing the diagnosis of diphtheria, it is plain that the percentage of mortality will be very much decreased; but it will not change the actual mortality caused by the disease.

The bacilli are most frequently found at the site of necrosis; seldom in the internal organs. Furthermore it is rare that the Klebs-Löffler bacillus is not accompanied by other organisms. Examination of the blood and viscera reveals a streptococcus more often than the diphtheria bacillus. Consequently, a pure infection is a rarity; but when it does occur, the tendency is to recovery. The literature upon antitoxin shows that a number of clinicians have classified diphtheria cases received at the hospitals as "mild," "moderate," and "malignant" (and treated them accordingly), thus immediately prognosticating the course of the disease. According to Baginsky (*Berl. klin. Woch.*, Nov. 4, 1894, p. 1025), it is impossible to foretell the results of this disease, for the advent may be extremely mild, and, in a very short time, present a most malignant character, or *vice versa*.

As to the changes produced in the viscera by diphtheria, we are wholly dependent upon malignant cases; for very mild cases rarely have a fatal issue, consequently do not reach the autopsy table. Those cases, however, which are subjected to pathologico-anatomical examination usually reveal what is found in nearly all instances where infection was the cause of death. Excluding the changes observed in the fauces before death, the heart muscle may be found a trifle cloudy, and, when endocarditis or pericarditis is noted, it is generally ulcerative in character. Slight hemorrhages into the lungs are sometimes seen; slight swelling of the spleen, cloudy swelling of the liver and kidneys, are almost invariably present. It is plain, therefore, that the immediate causes of death may be legion.

At times a certain remedy has been successfully employed in combating every case occurring in one village, whereas, in an adjoining village, the same remedy employed by the same physician (A. Baginsky) was almost devoid of therapeutic action. Even up to the present time, the mortality varies within extremely wide limits, depending not so much upon the remedy used as upon the character of the epidemic. Consequently, a period of one or two years is not sufficient in which to judge the efficacy of a new remedy, especially one derived from the animal kingdom, and the nature of which is so little known as is antitoxin. In the latter we have the serum of a horse, which has been rendered immune to the toxic action of the Löffler bacillus. This serum is

said to be almost indifferent in its action upon the healthy organism. Now, let us consider this statement:

"As a general rule, the blood-serum of some mammals dissolves the blood-corpuscles of other mammals (Landois). Before the corpuscles are dissolved they run together and form sticky masses, which are apt to occlude the capillaries. After a while they give up their hemoglobin, leaving the stroma, which yields a sticky, fibrin-like mass that may occlude the vessels. As a result there are often signs of the circulation being impeded in various organs. In man, after transfusion of blood, the skin is bluish-red (bloody urine has been observed in man after the injection of 100 gme. of lamb's blood), in consequence of the stagnation of the blood in the cutaneous vessels. Difficulty of breathing occurs from obstruction in the capillaries of the lungs; while there may be rupture of small bronchial vessels, causing sanguineous expectoration. Degeneration of the parenchyma of the kidney occurs as a result of the occlusion of some of the renal vessels. The uriniferous tubules become plugged with coagulated albumin (Ponfick). Other symptoms, referable to the nervous system, sense organs, and heart, are all due to the interference with the circulation through them. An important symptom is the occurrence of considerable amount of fever half an hour or so after the transfusion of heterogeneous blood." (Landois and Stirling: "Human Physiology," 3d ed., 1888.)

From this it is seen that transfusion of heterogeneous serum is liable to cause very nearly the same changes in the organism as an infection with diphtheria; therefore, transfusion of a heterogeneous serum would be contra-indicated. The proof that subcutaneous administration of antitoxin does not produce the same effect is still lacking; while, on the other hand, the ill effects of its use, which have so often been reported from the very beginning of its administration, indicate that the conditions above noted after transfusion of blood and serum were not exaggerated by the observers.

Several cases have been noted in which a fatal issue followed the administration of a small dose of antitoxin, to immunize apparently healthy children who had been exposed to the contagion. (Huebner, in *Deutsche med. Woch.*, 42, 1895.) In these cases diphtheria did not appear, but this does not preclude the possibility that death may have been due to infection.

From what is known of the effects of serum transfusion, it is not altogether improbable that ery-

thema, hemorrhages in the skin, pain in the joints (with or without swelling), albuminuria, hematuria, rise of temperature, heart-weakness, and arhythmic pulse, which have so often been noticed after the administration of antitoxin, were induced by the injection of a heterogeneous serum. However, these conditions are sometimes seen in diphtheria without the use of antitoxin. As to paralyses, we remember none proved to be due to transfusion of serum; but Huebner (*loc. cit.*) states that $7\frac{1}{2}$ per cent. of paralysis followed the administration of 1110 immunizing units, and 12 per cent. followed the administration of 1700 units. From this it appears that, if the dose is increased, the paralysis following its use in diphtheria increases in a greater ratio.

The experiments of Vissman (*Med. Rec.*, Sept. 14, 1895), undertaken for the purpose of determining the effects of antitoxin upon animals in which infection with diphtheria could be excluded, show that subcutaneous injection with this remedy may produce swelling of the spleen, cloudy swelling of the liver, acute parenchymatous nephritis, and, if large doses be given, even a hemorrhagic nephritis. These experiments have been corroborated by Chapin (N. Y. Acad. of Medicine, Nov. 7, 1895). They would seem to indicate that subcutaneous injections of antitoxin probably produce the same effect upon the organism as transfusion of heterogeneous serum or blood.

Now, if this so-called remedy possesses immunizing and healing properties, as claimed, it deserves to be classed with Jenner's discovery, which not only reduced the number of cases of smallpox, but also reduced the percentage of the community who succumbed to the disease. Thus far such satisfactory results have not been attained, and, judging from the experiments of Vissman, Chapin, and Landois (1874), it is questionable whether this cherished hope will ever be realized. The number of cases of diphtheria reported has certainly not been reduced, and it is very doubtful whether the health reports of a single city will show that there were not more cases in 1894 and 1895 than in any two years previous to 1894. It is quite probable that every health report will show that, in certain years since 1890, there was a smaller mortality from the disease than in 1894 or 1895. The cause of the increased number of cases is due to the change in the methods of diagnosis, as above stated; other reasons for the very great increase reported can scarcely be adduced.

As for the immunizing properties of antitoxin, they are, to say the least, doubtful and very tran-

sitory in character. According to the most sanguine, the immunity lasts from about two to four weeks. Now, if, as we are taught, the serum has no effect upon the Klebs-Löffler bacillus, and this organism may live in the fauces for as long a period as two months, a single dose of antitoxin is utterly useless; for, if this organism causes the disease, what is to prevent an attack after the immunizing effect has passed away? Experiments on animals show that antitoxin lowers vitality, and if several doses are administered the vitality is correspondingly lowered, the patient being thus rendered less able to combat infection. This increased liability to infection is indicated, though not absolutely proved, by several reports. For example: Aaser (*Deutsche med. Woch.*, No. 22, 1895) found that 20 per cent. of the children in his hospital had diphtheria bacilli in their fauces. The remainder (24) were transferred to another ward, where antitoxin was administered for purposes of immunization. Three of the latter group were attacked by diphtheria, while those having Löffler bacilli in their throats suffered no ill effects from their presence.

So far as we know, no instance in which a single or several doses of antitoxin have caused the death of animals has been reported; but several cases have been recorded in which death soon followed after its administration to children, and that, too, without there being positive evidence that lethal exitus was due to another cause—for example, Alfoeldi's case (*Pesth. med.-chir. Presse*, No. 10, 1895).

Finally, while the percentage of mortality in diphtheria, as compared with the total number of cases reported, has been appreciably diminished, it is still doubtful whether the percentage of the community succumbing to this malady has been reduced or increased.

Money Value of a Limb.—In the case of James Roberts, a brakeman, against the New York, New Haven and Hartford Railroad Company, before Judge Lacombe in the United States Court, the jury returned a verdict for the plaintiff for \$5,000. Roberts sued to recover \$50,000 damages for the loss of his right leg through being struck by a low bridge.

In the case of Rouss vs. the New York Biscuit Company, before Judge Wallace in the United States Circuit Court, the jury recently returned a verdict for \$10,000 for the plaintiff. Rouss lost his right hand through an accident while at work in the defendant's factory. He sued to recover \$20,000.—*Journal of Amer. Med. Assn.*

ORIGINAL CONTRIBUTIONS

A CASE OF PYONEPHROSIS DUE TO NEPHROLITHIASIS; OPERATION; DEATH; AUTOPSY *

By RAMON GUITERAS, M.D.

Professor of Anatomy and Operative Surgery at the New York Post-graduate Medical School and Hospital; Consulting Surgeon, French Hospital; Attending Surgeon, Columbus and City Hospitals

MRS. C. J., aged 49; occupation, housewife; entered the Columbus Hospital on May 20, 1895, complaining of pain in the back and pain and swelling in the right lumbar region.

Previous History.—The patient had always enjoyed good health, and had never been sick until the commencement of her present trouble.

About a year and a half ago she began to have pains and a feeling of distress in the umbilical and right lumbar region, which a physician told her was dyspepsia and for which she was treated for some time without obtaining relief.

Some six months later she noticed a small tumor in the region where she had been experiencing her pain and distress. This was sensitive to the touch, and at times there was a good deal of pain and heaviness present. These symptoms, however, were by no means constant, as at times she would feel relieved for periods of several days.

The tumor continued to increase slowly in size, while at the same time her general condition seemed to be growing constantly worse. The symptoms of dyspepsia for which she was being treated became more marked; her periods of vomiting, which at first had been only occasional, then became much more frequent; her appetite began to fail, and her bowels moved with the greatest irregularity, several days intervening occasionally between the movements.

During all this time the tumor was slowly increasing in size, and in proportion as the size of the tumor increased the patient lost her strength and weight, until at the time when she entered the hospital she had been confined to her bed for several weeks and had lost over forty pounds in weight.

In answer to questions, she stated that her periods had always been regular up to one year ago, when they had ceased; that she had given birth to four children, who were alive and well, the youngest of whom was now fourteen years of age. She stated that her habits had always been good, and that she never indulged in stimulants, excepting at her meals, when she usually drank a little red wine.

Condition on Entering the Hospital.—The patient appeared very weak and emaciated. Her temperature on the morning of entering was 98.6 deg., and on the same evening was somewhat elevated. This variation in night and morning temperature continued during the entire time that she was under observation before the operation. Her appetite was poor, her tongue coated, and she vom-

ited occasionally. Her bowels were constipated, and had not moved for several days. Her urine was light in color, of a specific gravity of 1016, and contained a slight amount of albumin. Macroscopical examination showed no casts, but some pus.

Locally on the right side the tumor was observed extending from under the free margin of the ribs, forming the right side of the subcostal triangle, down into the right iliac region. Laterally it extended from the umbilicus beyond the lateral line of the loin, which it bulged out somewhat. The tumor was hard, tense, and apparently non-fluctuating. Various diagnoses, such as perirenal abscess, impaction of feces, etc., had been made by her former physicians.

Notes of the Case While in the Hospital.—

May 21.—Gave sulphate of magnesia, 3 dr.; this followed some calomel which had been given the night before.

May 22.—Bowels moved slightly; gave castor oil, after which there was a free movement.

May 23.—Bowels moved twice.

May 24.—She vomited several times.

May 25.—Up to this date the urine had been about the same, when it was found to contain a good deal of pus in the morning, although later in the day it was again clear, with a specific gravity of 1014.

May 26.—Her urine was clear at intervals, and during the remainder of the time clouded with pus.

Diagnosis.—The case was evidently one pyonephrosis, due to one or more renal calculi, which tended to clog the ureter in the pelvis of the kidney, preventing the escape of pus for intervals of different duration. As the urine was comparatively normal at times, it indicated that the other kidney was in good condition, and was successfully doing the bulk of the work.

Operation.—May 27 nephrectomy was performed. A combined or curved incision was made from the twelfth rib along the outer border of the erector-spinae muscle to the crest of the ilium, and then curved forward.

The muscular walls of the abdomen were found to be much atrophied. The lumbar fascia and the quadratus-lumborum muscle having been cut through, the capsule of the kidney was immediately brought into view, and, as there was no perirenal fat present, it closely resembled one of the layers of the lumbar fascia. By slipping the fingers over its surface, however, the difference was quickly noticed. The ileo-inguinal and ileo-hypogastric nerves were seen stretched tightly across it, like two cords. The kidney was observed to be very large and tense. Fluctuation was not evident on palpation, although the characteristic feel of a fluid tumor, extremely dilated, and with a thickened wall, was present. The capsule was of a bluish-gray color.

The tissues in relation to the kidney anteriorly—that is, the colon, mesocolon, and duodenum—were all closely adherent, so that the greatest care was necessary in shelling them off, which was done with the thumb of the right hand, while the organ was

* Read before the Genito-Urinary Section of the Academy of Medicine, Dec. 9, 1895.

steadied with the left. The artery and vein were seized by separate artery forceps, and ligated on the proximal side of the clamps with stout silk, and then cut through on the distal side, allowing a good half-inch between the ligature and the point of cutting.

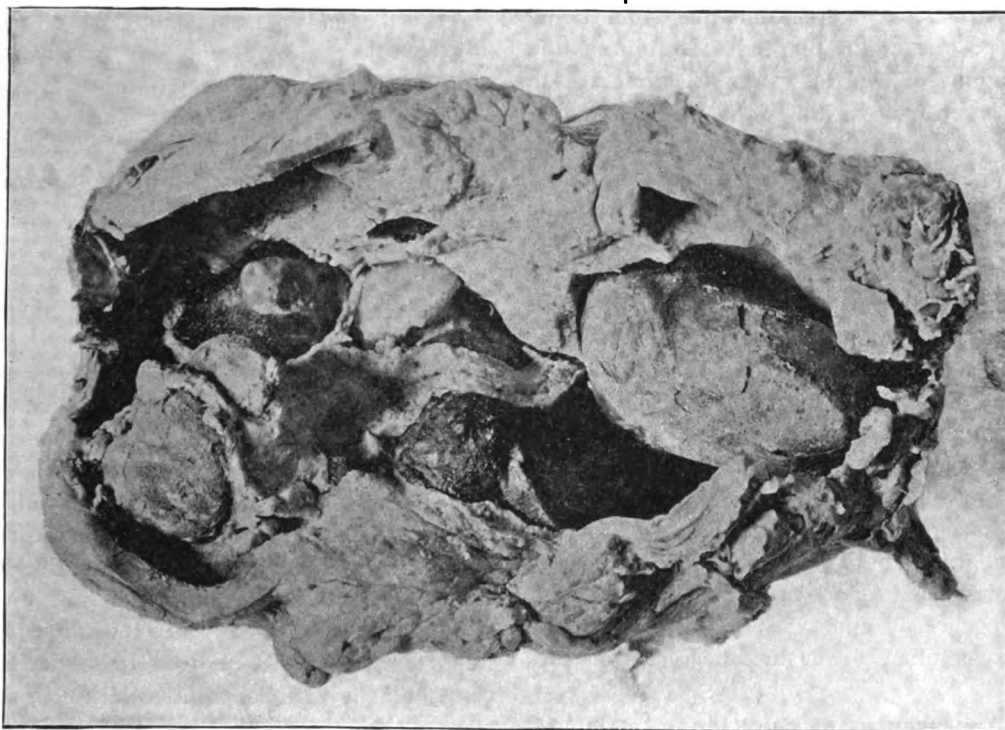
The kidney then hung, by the ureter alone, which was much enlarged, being about the size of the little finger. A sterilized towel was placed beneath the organ, and the ureter was ligated with stout silk in two places, two and three inches from the kidney respectively. It was then cut through between the sutures, and the ends caught and squeezed by sterilized gauze. The kidney having been removed, the remaining end of the ureter was washed carefully, and then the inside of the end of the canal was touched with the Paquelin cautery.

The wound was washed out with hot water and

after the operation.—The patient had passed no urine since the previous day. She was evidently suffering from acute suppression, and although the catheter had been passed several times, no urine had been found in her bladder. I therefore ordered that half a drachm of sweet spirits of niter be given her in water every three hours, and that she be cupped over her remaining kidney. Her general condition seemed to be good.

May 29.—The patient's general condition was much worse. She twitched occasionally, and her pulse was weak. Ordered hypodermic injections of digitaline and strychnine, and later digitalis poultice over the remaining kidney. The patient continued to fail rapidly, however, and died early in the following morning, without having excreted any urine.

The Autopsy.—The operation wound was clean,



LONGITUDINAL SECTION OF KIDNEY REMOVED FOR PYONEPHROSIS DUE TO NEPHROLITHIASIS.

packed with iodoform gauze. It was then closed by deep sutures going entirely through the abdominal wall. The patient was quite weak at the end of the operation. She was therefore stimulated, and put to bed, with hot bottles at her feet.

The kidney which had been removed was 8 in. long, $5\frac{1}{2}$ wide, and $4\frac{1}{2}$ thick. A vertical incision was made through its pelvis, which opened the mouth of the ureter in its long diameter. Through this incision about a pint of thick pus escaped. The kidney was then seen to be sacculated, and to contain a number of phosphatic calculi, the largest of which was about twice the size of an English walnut. The capsule of the kidney was very much hypertrophied, and the parenchyma was entirely atrophied. A collapse of the kidney wall followed the escape of pus.

Condition after the Operation.—May 28, the day

healthy, and dry. The gauze packing was clean, being only partially discolored by blood. There was no disagreeable odor or feter present. No connection was found between the posterior space from which the kidney had been removed and the cavity of the peritoneum. The peritoneum was healthy. The small intestines were moderately distended, but the transverse colon of the large intestine was greatly distended, due perhaps to a constriction which was found at the splenic flexure.

The remaining kidney was normal in size. Its capsule was non-adherent; the surface was smooth; the cortex normal in thickness; the markings distinct; the organ appeared congested. No microscopical examination was made. It was probable that the patient had died of anuria, and that there were acute congestion and granular degeneration of the parenchyma of the kidney.

Questions for Consideration.—The fatal result of the operation in this case brings up certain important questions for consideration: First, Should nephrectomy or nephrotomy have been performed? It was evident that the other kidney was healthy, from the character of the urine that was passed at intervals. The patient was cachectic, which condition was due to the continuous pus formation, the pressure on the colon and other soft parts of the alimentary canal by the tumor, and the slight absorption of pus and fecal matter. On account of this cachectic condition, might it not have been better, having cut down quickly on to the kidney, and noted its condition, to have opened its capsule immediately and evacuated the pus and removed the stones, and then to have washed it out carefully with a solution of bichloride of mercury or peroxide of hydrogen, and inserted a tube and gauze drainage? Such an operation could have been performed in one-half the time, as the greatest amount of difficulty was experienced in freeing the organ from its adhesions, prior to removing it. In this way there would have been less ether used (which has been ascribed as a frequent cause for congestion of the kidney), and less shock to the patient.

The next important question which arises is this: The patient being in the condition that she was after the operation, what might have been done other than the measures adopted, to bring on a flow of urine? Would it have been better not to have given diuretics, which might have irritated the kidney and increased the congestion, but to have worked the skin or the bowels, vicariously for the former by means of pilocarpine and the hot pack, and the latter by doses of the compound jalap powder?

The following is a report of Dr. Ira Van Giesen, of the College of Physicians and Surgeons, to the museum of which institution this specimen was presented:

"Gross Appearances of the Kidney.—The kidney, with the calculi, weighs (after hardening in alcohol) 690 gme. It measures 16 ctm. in its longest diameter, is 8 ctm. wide, and 5 ctm. thick. The development of the calculi has therefore enlarged the diameter of the organ somewhat, especially in its thickness.

"Longitudinal section of the kidney discloses four unusually large and curiously arranged calculi. One of these, situated at the upper pole of the kidney, measures $6\frac{1}{2} \times 3\frac{1}{2} \times 1\frac{1}{2}$ ctm. in diameter. The remaining three are situated in the lower pole of the organ, and consist of two smaller stones, which have an irregular ellipsoid shape and measure about $1\frac{1}{2}$ ctm. in diameter.

"The fourth calculus is cylindrical, and is bent double or V-shaped, and measures $6\frac{1}{2}$ ctm. in length, with an average thickness of 2 ctm.

"All of these calculi have various tuberosities, and also facets where they lie in proximity to each other. The kidney is molded to fit the several calculi, with their irregular nodular extremities and

surfaces, and so great is the volume of the calculi that the kidney is really hollowed out into a mere shell, with pouches and pockets to accommodate the configuration of the stones. Thus the kidney tissue, including both the medullary and cortical portions, measures but from 4 to 5 mm. in diameter; while in many places very dense bands and sheets of dense connective tissue inclose and separate the several calculi from each other."

New York: 23 West 53d street.

[For discussion hereon, see p. 53 of the present issue.]

CONDYLOMATA

By WM. S. GOTTHEIL, M.D.,

Dermatologist to the Lebanon Hospital, and the German West-Side and Northwestern Dispensaries, New York.

THE term "condyloma" is applied in common medical parlance to certain excrescences and tumors of the skin, situated mostly on the genitals and in their neighborhood, exceptionally found in other areas, and popularly supposed to be connected in some way with venereal diseases. Among laymen they are known as "venereal warts"—a name that designates both their external resemblance to the ordinary verruca, and a commonly held theory as to their mode of origin. They are of fairly frequent occurrence. I find in my records the histories of some 30 cases seen in public and private practice during the last few years.

The prominent location of these tumors, and the discomfort and pain that they cause, bring them early to the notice of the patient; while their disgusting appearance and odor, when at all extensive, lead the sufferers to clamor for relief from their disagreeable deformity. Nevertheless, they are treated of but cursorily in the textbooks, and by no means receive the attention that their frequency and importance entitle them to. In none that I know of can all the various points relating to the diagnosis and treatment of these lesions be found. A brief consideration of the subject as now understood, illustrated by a few cases in point, may not be out of place.

First and foremost, however, we must recognize the fact that under the designation of condyloma, or venereal wart, two entirely distinct and separate affections are included. They have no points in common, save that the lesion in both cases is a dermal excrescence. Their minuter symptomatology, their etiology, and their treatment are entirely different. It is unfortunate that a mere external resemblance, of no greater diagnostic weight than the resemblance of the diarrhea of a tubercular intestinal inflammation to that of an entero-colitis, should have fixed the nomenclature of the affections. They are distinguished from one another by the addition of the words "acuminatum" and "latum" respectively. *Condylomata acuminata* are idiopathic non-malignant papillomatous tumors of the skin; while *condylomata lata* are papules marking the secondary stage of constitutional syphilis.

Condylomata Acuminata.—Condylomata acuminata, or papillomata acuminata, are connective-tissue new-growths that appear under certain circumstances in the skin that surrounds the orifices of the body, and the integument of the genito-anal region. They begin as smaller or larger pointed elevations or papillae, which grow rapidly and branch dendritically. Springing from a comparatively thin

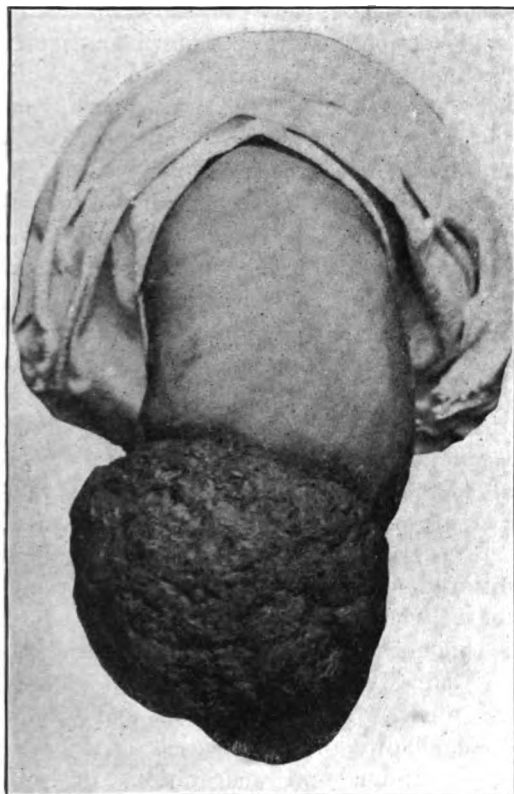


FIG. 1.

stalk, they soon assume a cauliflower-like shape, and spread laterally over an area greater than that occupied by their base.

They vary greatly in size and shape, depending upon the length of time that they have been present, and the nature of the surrounding parts. In the earlier stages they appear as threads, single or branched; later they form tuberosus excrescences; and, finally, the confluence of neighboring masses may lead to the formation of large raspberry- or cauliflower-like growths. If the surface is free, and the growing papillomata are not much pressed upon, they develop into flat tuberosus masses; but the pressure of surrounding parts may cause them to assume an elongated or irregular shape. Thus, on the glans penis such a papilloma is evenly rounded (Fig. 1); while on the labia majora the pressure of the thighs, etc., cause them to assume a cockscomb shape (Fig. 2).

The surface of these tumors is papillary and ridged; for all but the smallest are formed by the coalescence of a varying number of distinct tumors. The sulci on the surface mark the divisions between them. They are dry at first, and may remain so if the patient is exceptionally cleanly. But the secretion from the delicate surface soon accumulates

in the furrows and depressions; decomposition and pus infection set in; and the entire tumor is finally, in most cases, continuously bathed in a foul and ichorous discharge. The odor from it is horrible, and renders the patient an object of disgust to himself and to others. The discharge macerates the surface of the tumor, and denudes it of its epidermis; hence the extreme liability of these lesions to suffer injury from external causes.

Their color varies. Being extremely vascular, they are of a more or less deep red in locations where, as in the vulva, the surface epithelium is readily macerated and lost. On the penis and around the anus, on the other hand, where the conditions for maceration are not quite so favorable, the epidermic layer is thicker, and they have a grayish pink or flesh color.

The masses bleed very easily, and readily become inflamed. Sloughing sometimes occurs, and cases have been reported in which a spontaneous cure has been effected in that way.

They occur, as has been said, most commonly at the muco-cutaneous junctions of the body, especially in the anal and genital regions. They are frequently found springing from the sulcus coronarius, the inner surface and the margin of the prepuce, and from the frenum in males. In women they most commonly affect the urethra, the labia majora and minora, and the anus. In the male, if situated in the urethra, they may cause some dysuria and a muco-purulent discharge, thus simulating a gonorrhea. Condylomata acuminata are not limit-

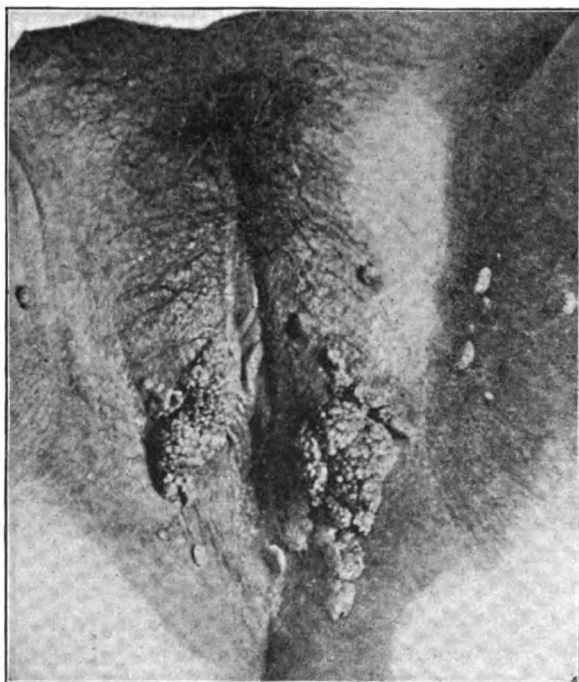


FIG. 2.

ed to these regions, however, for they are found occasionally on the general integument, and have even been seen in the mouth.

They are met with in about equal frequency in both sexes, though some writers claim that females are most commonly affected. Of my own cases 16

were females and 14 males. Young adults, between the ages of 15 and 35, are most often the subjects of the disease; my youngest case was 17 months old, and my oldest 36 years.

Etiology.—The popular designation of these tumors testifies to the belief that they are manifestations of venereal disease. The gynecologists (Luther, Witte, Broese) still seem to regard gonorrhea as the only cause for their appearance, which Thimm¹ regards as curious. It is in no way the case. Gonorrhea is present in many, perhaps in most, cases; but often there are other causes, and sometimes none is discoverable at all. We are dealing with a simple hypertrophic disease process on an inflammatory basis; all the elements of the skin, of the papillæ, the vessels, the nerves, and the epithelium are equally involved. There is no reason why gonorrhea should be the only irritant to cause it. Indeed the etiology is obscure. Contagion has been supposed to be at the bottom of it, and F. Currier² believes them to be highly so. There are a number of observations that seem to bear out that view. The case shown in Fig. 2 concealed the fact of her disease from her lover during its early stages; and he acquired similar warty growths on his penis. Contiguous points are almost always affected, as is shown in Fig. 2 and in Fig. 3. It is not uncommon to find isolated warts on the sides of the buttocks or on the perineal region, with others exactly opposite and touching them. And, finally, the evidence in favor of the contagiousness of ordinary warts would lead us to suspect the same of these similar formations.

Ducrey and Oro³ have been so impressed with these facts that they examined a number of these growths for micro-organisms. After careful disinfection of the tumors and the surrounding tissue, they excised them, and sowed them in various culture media. They obtained only negative results. Various microbes were developed and isolated. Some were undoubtedly accidental; but others were so constant that they were suspected to be the causal agent of the disease. But inoculation experiments on man and animals were alike fruitless. They were struck, however, with the clinical analogies between condylomata acuminata and the psoro-spermosis of Darier; and they claim to have found bodies very like the psoro-sperms in their sections. They were round and oval bodies lying between the cells of the stratum corneum and of the stratum Malpighii, some being found even within the epithelial cells. Osmic acid showed cystic forms. Ducrey and Oro concluded that the condylomata acuminata belonged to the psoro-spermoses; but subsequent investigations have not confirmed their results. As E. Martin says, all the etiological finds of the protozoa are as yet speculative.

Lang⁴ claims, and he is undoubtedly correct, that

¹"Kürze Bemerkungen zu einigen neueren Arbeiten über Condylomata acuminata, etc." *Reichs-medical Anzeiger*, Nos. 13 to 15, 1896.

²Morrow: "System of Dermatology."

³*Riforma medica*, June, 1892.

⁴E. Lang: "Das venerische Geschwür," p.

long-continued venereal ulceration of any description may cause irritation of the papillæ of the skin, and excite them to overgrowth. The discharge from a chancre or a chancroid, the pus from a balanoposthitis, with or without a gonorrhea, the secretions of ulcerative secondary lesions, will all undoubtedly cause their appearance.

In point of fact, the lesion is in its origin an inflammatory one; and an irritating discharge, whatever its origin, may set the papillary hypertrophy in motion. Mere mechanical stimuli may also be the cause. Once started, heat, moisture, and friction are the factors that keep it advancing. The initial irritant very frequently, perhaps most commonly, is a gonorrhea; but non-gonococcal pus from any source will do the same if the conditions are otherwise favorable. Predisposition plays some part, and I am convinced that in some individuals mere neglect and uncleanness will cause sufficient irritation to determine their development. It is of interest in this connection that condylomata acuminata of the penis rarely appear in persons that have been circumcised or that have very short prepuces. I have kept no exact record in regard to this; but out of my 30 cases there is not a single one whose name unmistakably testifies to his Jewish origin.

Anatomy.—As Thimm⁵ correctly observes, neither textbooks nor monographs tell us much about the anatomy of these growths. They are papillomata, and belong to the class that includes warts, horns, polypi, and the so-called cauliflower excrescences. As the result of irritation and maceration, or without apparent cause, the papillæ and the rete mucosæ commence to hypertrophy. The papillæ elongate and give off lateral branches; and the blood-vessels and nerves grow *pari passu*.

The epidermis, however, as Unna has demonstrated, is not usually more voluminous in condylomata acuminata than it is in the normal skin; hyperkeratosis is entirely absent. In this it differs from the verruca, or wart, a closely related papillomatous growth. This latter shows a similar hypertrophy of the papillæ and the rete, with a like overgrowth of the vessels and nerves contained therein; but with the addition of a great increase in the epidermal layers. This difference, however, is probably rather accidental than fundamental; as is shown by the occurrence of condylomata acuminata with horny tops, or even complicated with cornua cutanea. Kaposi's explanation is plausible and sufficient. Both growths are papillomata in which all the elements of the skin participate in the hypertrophic process. But the verrucæ, or warts, are always so situated that the epidermis has an opportunity to accumulate and become horny; they are dry and hard, and covered with a thick corneous layer. The condylomata acuminata, on the other hand, are generally so placed that their surfaces are macerated; the soft-

ened epithelium is removed before it has a chance to become corneous, and sections show a normal or even a thinned-out epidermoidal layer. Lesser⁶ goes so far as to say that in some cases it may be absent entirely.

This thinness of the protecting epidermal layer in these papillomata explains their great vulnerability,

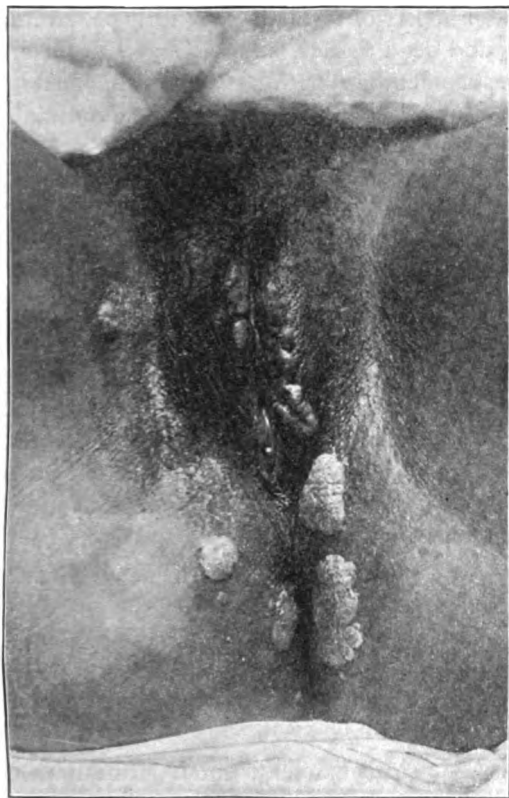


FIG. 3.—CONDYLOMATA ACUMINATA OF VULVA AND PERINEUM.

and their extreme liability to hemorrhage, inflammation, gangrene, etc. Probably also, from the ease with which external infecting agents can penetrate into their interior, it explains their liability to occasionally undergo malignant degeneration.

The condylomata acuminata are extremely rich in nerve elements. This fact is not generally known, having been first described in 1894 by A. Reissner.⁷ Vollmer's recent and beautiful researches⁸ have fully confirmed his conclusions. The observers differ, however, as to the anatomical arrangement of the nerve-endings. Reissner found that a few nerve-end fibers in the papillæ repeatedly divide dichotomously on their way to the rete Malpighii, so that they finally formed a complete network reaching up into the corneous layer. Vollmer claims that the nerve fibers terminate in part in the Langerhans cells in the epithelial covering of the condylomata, and end in part in free bulbous extremities. Both agree that the fibers are of the non-medullated variety. This abundant and complicated nerve supply explains the exquisite sensibility of these growths when irri-

tants are applied to them, no matter how carefully the surrounding tissues may be protected.

Diagnosis.—The differential diagnosis of condylomata acuminata from other tumors is usually easy. It is necessary, however, to distinguish them from condylomata lata and from epitheliomata. The broad-based excrescences, and especially the presence of other signs of lues, will distinguish the former affection from the one under consideration; but it must not be forgotten that a true papillary overgrowth may be excited by the specific lesion, and both C. acuminata and C. lata coexist.

In epithelioma the age, the ulceration, the rapid growth, and the glandular induration are characteristic. Besides this, the cancerous tumor involves not the skin alone; the surrounding tissues also are filled up with the dense infiltration. I must add, however, that here, as in so many cases, at the time when the diagnosis is most important, it is most difficult to make. In their very earliest stages C. acuminatum and epithelioma may greatly resemble each other. Excision and microscopic examination are, then, our only means of differential diagnosis.

Finally, as is noted in more than one of my cases, C. acuminata, especially when situated around the anus, may present physical features indistinguishable from those of C. lata. One of my cases was that of a child with broad-based fungous excrescences on the perineum and around the anus. They looked very much like the broad condylomata. Yet the child was otherwise in perfect health, and the tumors disappeared under the use of a salicylic-acid dusting-powder.

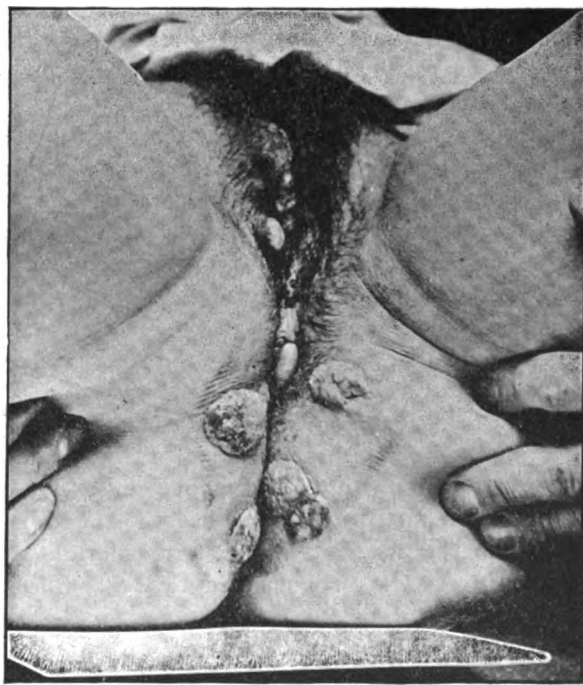


FIG. 4.—CONDYLOMATA LATA OF VULVA AND PERINEUM

Prognosis.—When kept perfectly clean, and protected from external injuries, the condylomata acuminata show some tendency to spontaneous recovery. But even the most careful patients rarely attain the necessary degree of neatness. These

⁶ Lesser: Ziemssen's *Encyklopädie der Medicin*.

⁷ A. Reissner: *Ueber das Vorkommen von Nerven in spitzen Condylomen*. *Archiv für Dermatologie u. Syphilis*, 1894, Vol. II.

⁸ E. Vollmer: *Ueber Nerven und Nervenengigungen in spitzen Condylomen*. *Archiv für Dermatologie u. Syphilis*, 1895, p. 30.

growths are therefore exceedingly liable to inflame and to become the center of ulcerating and suppurating areas. Complications, such as suppurating bubo, not infrequently manifest themselves, and they may become the starting-point of cancer. Excrescences of any kind on the genital organs of the old are always suspicious; they rarely remain benign. Nor must it be forgotten that the malignant neoplasms in their early stages closely resemble the condylomata acuminata.

Treatment.—In some cases of condylomata acuminata any of the ordinary surgical means for the removal of tumors will suffice; but circumstances frequently render other methods more desirable. More especially are these the extreme tendency to *récidives* on the one hand; and on the other the large area involved, especially when situated on the female genitals.

Our first object, of course, is to remove the irritation which has been the causative or the contributing agent in the appearance of the growth. Gonorrhea or leucorrheal discharges must be cured. Phymotic foreskins must be circumcised. Venereal ulcers must be cauterized. If the papillomata are around the anus, that orifice must be carefully searched for fissures or ulcerations, to be appropriately treated and cured if present.

While the specific treatment consists in the removal of the papillomata and the cauterization of their bases, it is frequently both possible and desirable to use less radical measures. The extent of the tumors often makes an operation a matter of some difficulty; their location on the genitals, and extreme sensitiveness, render such interference very painful, while their great vascularity gives rise to very free hemorrhage, readily controlled, however, by pressure or the cautery.

Salicylic acid, though slow in action, occasionally acts satisfactorily. It is desirable to use it in infants and old people, where an operation is to be avoided. It may be employed pure as a dusting-powder, or mitigated with varying proportions of zinc oxide or talcum. In saturated solution it may be brushed over the tumors daily. In the small, soft condylomata found around the anus and on the perineum in children, these mild measures will be found sufficient sometimes to cause a gradual shrinking and final disappearance of the tumors. Such was the fact with the case above cited. Cures have been reported from the use of the liquor plumbi subacetatis and the tinot. ferri chloridi.

Resorcin was first recommended by Cæsar Boeck, of Christiania, in 1886. It sometimes gives good results, especially in *récidives* after operative removal of the condylomata. It is slow, however, and causes fairly violent inflammatory reaction. Nor can it be readily localized in the proper manner to the affected parts, whether used in powder or in solution; the healthy skin is treated also.

Thimm⁹ has lately recommended formalin

very highly indeed. The substance known under that name is a 40 per cent. solution of formaldehyd. Applied to the animal skin, it makes it impervious and leathery, and even causes necrosis. Brushed in a circle around the base of the ear of a rabbit for a number of days in succession, it caused it to be cast off without hemorrhage or suppuration. These effects depend on the property of formalin to readily penetrate both living and dead tissues, and uniting with them. The tissues are necrosed with but little inflammatory reaction, and without suppuration. Thimm used the remedy in several cases with excellent results. Daily brushings of the tumors with the solution caused them to become dry and leathery; and they finally fell off without the patient being in any way incommoded by the treatment.

More powerful agents are the chemical caustics; and to these we must have recourse in a large number of cases. Acids and alkalies are both employed. We must beware, however, of imperfect cauterization. It simply acts as a powerful stimulant, and causes a rapid increase in the size of the papilloma. The application must be thorough enough to destroy the papillæ from which the tumors grow. Nitric acid is effective, as is also caustic potash prepared according to the following formula:

Lead Oxide 2 grn.
Solution of Caustic Potash (33 per cent.) . . 1 dr.

Shake, and apply thoroughly after cleansing. One or two applications are sufficient.

Chromic acid is efficient, but it sometimes causes general toxic symptoms. It may be employed pure two or three times, or a 10 per cent. solution may be used daily and liberally.

Derville¹⁰ recommends pure carbolic acid applied to the tumors, on a cotton tampon, and bound *in situ*. There is but little pain, and the affected parts fall off in two or three days. Lang employs¹¹ trichloroacetic acid, Unna¹² recommends the hydrargyrum-acidum-arsenicum plaster-mull; but it must be used with care, as it is very irritating and causes much pain.

Whatever cauterant is employed, the surrounding surface must be carefully protected with vaselin, to prevent its too extensive action. After the cauterization the parts are dressed with boric acid in powder or ointment, and spread upon cotton or lint.

In some cases, however, operation is the readiest method of treatment for the removal of these growths. It is well to remember that severe and even fatal hemorrhage (Lesser, *loc. cit.*) has occurred. If the tumors are small and discrete, they may be seized with the mouse-tooth forceps, and snipped off at their bases with a pair of scissors. The bleeding points should then be touched with pure carbolic acid, and dusted over with iodoform or boric acid. Larger tumors must be shaved off level

¹⁰ *Semaine méd.*, 1893, No. 38.

¹¹ *Monatshfte für praktische Dermatologie*, 1891, p. 372.

¹² *Monatshfte für praktische Dermatologie*, Vol. XVIII, p. 317.

with the surrounding tissues with a sharp, flat knife. A vigorous curettement of the wound, followed by cauterization with carbolic or nitric acid, is then done. The wound is dressed with iodoform. The galvano-caustic loop or knife, or the actual cautery, may be employed instead of the knife, to be followed by similar after-treatment and dressing. A still more radical and certain method is the dissection out of the entire base of the tumor, suturing together the edges of the wound afterward. Very rarely, however, will this be found necessary.

In pregnant women condylomata acuminata grow rapidly, and attain an enormous size. After delivery they very commonly undergo spontaneous involution. This should be borne in mind when considering the advisability of operation.

Condyloma Latum

Condyloma latum should be a well-studied and accurately known disease-growth, if wealth of nomenclature is a criterion. "Condyloma latum" and "condyloma planum" are the commonest of these designations. "Mucous papules" is a term frequently employed. Casenave¹³ enumerates the following synonyms: Plaques muqueuses, pustules muqueuses, plaques humides, tubercules muqueuses, and tubercules plates. Ravogli¹⁴ speaks of papula humida, pustula foetida, papulae mavidantes, etc. In spite of this, however, the broad condyloma is by no means a thoroughly understood lesion.

It is a tumor that belongs to and is most characteristic of the syphilitic disease. It occurs at any stage from the very earliest to the latest of that malady; but it is commonest in the early months. It frequently appears in combination with other manifestations of systemic infection, but not infrequently it is the only evident lesion. In its essence it is merely an altered form of that common lesion known as the mucous patch; but it is a mucous patch that has been changed and developed by the accidents of location and the habits of the individual patient.

Mucous patches, so very common during the stages of general syphilis, are merely papules of the mucosæ. They may appear as part of a general muco-integumentary papular, pustular, squamous, or other eruption; or they may appear alone, the skin being entirely unaffected. Mucous patches of the ordinary kind are simply papules of a general syphilitic eruption situated in places where maceration and erosion necessarily occur. Such situations are the oral and vaginal cavities, the thighs, scrotum, labia, and anus, the interdigital skin of the feet, and under the breasts, etc.

Of all the syphilitic lesions occurring on the genitals and around the anus, mucous patches are the most frequent. But they do not there usually assume the form of the grayish-white eroded patch so familiar to us in the buccal cavity. Most commonly they appear as tumors, which with

Tuttle¹⁵ we may designate as the elevated or the vegetating mucous patch, or in other words, the condyloma latum.

Being then a mucous patch, or, what is the same thing, a papular syphiloderm, they are extremely contagious. With the other papules of early syphilis, they share the honor of being a much commoner cause of inoculation with the disease than the chancre or sclerosis itself. Cazenave claims that the condylomata lata are not contagious—that he could not inoculate with them. This is manifestly an error. Clinical observation agrees with the experimentation, and confirms their contagiousness, and the fact that they produce a hard chancre. Kelsey says: "The secretion from these growths is in the highest degree contagious; and it is also auto-inoculable."

Etiology.—The cause of condyloma latum is of course that as yet undescribed organism that causes all the various symptoms of the disease. The dry papule becomes a moist one by the accidents of site and other local conditions. Firmness of the skin and thinness of the epidermis favor their formation, as do also friction with adjacent surfaces, and contact with exudations and secretions. Wherever the skin is delicate and perspiring, wherever there are contiguous surfaces, as at the folds and creases of the skin, there the broad condylomata appear. With a general eruption, or without it, we shall find them under the breasts, in the navel, in the axilla, in the genito-crural region, and in the interdigital spaces of the lower extremity. But they are especially common at the points of junction of the skin and mucous membranes, more especially when the favoring conditions mentioned above are also present. Nowhere are they more often found than on the labia, the scrotum, the perineum, and around the anus. Fig. 4 illustrates an excellent example of the affection.

Anatomy.—The anatomy of the condylomata in its earlier stages does not differ from that of other syphilitic nodes. There is the familiar small-celled infiltration into the papillary layer and the corium, occasionally extending into the subcutaneous connective tissue and sharply limited. The cells are of the ordinary leucocytic type, though varying in size; and they are apparently imbedded in a very fine network. In point of fact, it shows the ordinary characteristics of a granulomatous tumor.

The papillæ affected by the infiltration are enlarged, mainly in their longitudinal diameters, and terminate in branched, club-shaped ends. The mucous layer is thickened at the periphery of the condyloma, where it is growing; the conical processes are elongated and broadened.

Diagnosis is usually not difficult, inasmuch as the location and the form of the lesion are characteristic. The differential diagnosis from vegetations of non-venereal origin is, however, of importance, more especially with condylomata of the acuminate variety, which are frequently caused by irritants, and may greatly resemble condylomata lata.

¹³ *Die Syphiliden*.

¹⁴ *Monatshfte für praktische Dermatologie*, 1893, No. 2.

¹⁵ Morrow: "System of Dermatology."

The main point is that the specific lesion is fig-shaped, and is about as broad at its base as it is at its summit; while the acuminate condylomata are distinctly pedunculated, and grow in a branched dendritic fashion.

This prominent differential point is not always obvious, however. Pressure may flatten out the acuminate projections of the simple papilloma until they assume a mushroom-like appearance. We are then compelled to rely on the history of the case, and the presence or absence of concomitant symptoms of general specific disease, for our diagnosis.

Molluscom contagiosum, said by Wolff¹⁶ to be especially common in prostitutes (though this is not my experience), on the labia majora and inner thighs, may be occasionally mistaken for condylomata latum. But the mollusca are waxy, shining tumors, seldom confluent, with a central punctate depression through which their contents may be expressed. These contents show, under the microscope, degenerate epithelial cells, and the characteristic molluscum corpuscles.

Symptoms.—The condyloma latum appears as a flat, rounded elevation, generally of a grayish-red color, and situated around the genitals. Dry at first, the tumor is soon moistened by a fluid consisting of sweat, sebum, and the natural secretion or excretion of the orifice on or near which it is located. This fluid soon decomposes and becomes foul and puriform. The parts become inflamed, and more or less supuration sets in. The exudation and the epithelial detritus may dry up into a brown crust, resembling that of a pustular or an impetiginous lesion. As a rule, however, the secretion is too abundant for this to occur.

The irritation that this secretion causes to the already enlarged and deformed papilla has its natural effect. Hyperplasia of the papillar body occurs, and the condyloma begins to vegetate. Contiguous lesions usually coalesce, forming irregular, flat, cauliflower-like growths. The surface of the tumor is furrowed by irregular fissures which channel the mass. Here we have a mixed growth—a papilloma due to irritation on the top of a syphiloma due to infection. This explains why some of these growths do not respond to antiluetic treatment.

Now, while on most of the body surface where contiguity occurs the papule of syphilis simply becomes eroded and develops into the mucous patch, on the genitals its course is peculiar. Here the true condyloma latum is seen. On the perineum and the scrotum they form round, reddish-gray or gray nummular discrete lesions. Around the anus and on the labia they are frequently arranged like buttons. Friction, pressure, and maceration often cause immense tumefaction; and fissures, itching, burning, and spasm of the orifices involved are not infrequently seen.

On the female genitals they frequently attain their greatest size. There they form confluent,

nodular, warty masses, bathed in a foul, decomposing discharge composed of epithelial detritus, pus, sweat, sebum, urine, etc. Dermatitis is set up, with Bartholin's glanditis, vulvar edema, etc. The entire vulva may become infiltrated and hyperplastic, sometimes becoming so sclerosed and rigid as to interfere greatly with the patient's comfort. If utterly neglected, these growths form large framboesia-like masses. Spontaneous ulceration and partial destruction may occur; but in general they show little tendency to resorption.

Prognosis.—Condylomata lata are very refractory to treatment. They are very prone to relapse; and cases have been known in which they have occurred ten to thirty years after the initial lesion. The immediate local prognosis, however, is good.

Treatment.—The treatment of condylomata lata is largely that of the syphilis that they are a part of. It is needless to go into the general therapy of syphilis here. Suffice it to say that, as in the other secondary manifestations, mercury in subcutaneous injection is the surest, quickest, and most effective method of treatment. It is the one that I always employ when the patient permits it.

Local treatment is, however, of importance. Unguentum hydrargyrii, unguentum hydrargyrii ammoniata, emplastrum hydrargyrii, or calomel—are to be preferred when the condylomata are so situated as to allow of their application. Absorption may be hastened by touching them every fourth day or so with the acid nitrate of mercury, using the other applications in the interval.

If ulceration and decomposition of secretion and detritus have set in, compresses soaked in a solution of sulphate of copper, 1 : 300, are effective. Iodole and iodoform are also of service. When the lesions are very extensive, calomel must not be used pure, but must be mixed with some indifferent powder, such as chalk or talcum, 1 to 5 or so.

New York City; 37 West Fiftieth street.

A FEW IMPORTANT POINTS IN THE EARLY DIAGNOSIS OF CHRONIC DISEASE OF THE JOINTS *

By LE ROY W. HUBBARD, A.M., M.D.

IN response to an invitation to read a paper before the Section on Pediatrics, on a subject belonging to the domain of orthopedic surgery, I invite your attention to a few important points in the early diagnosis of chronic disease of the joints. I shall confine myself to a consideration of that form of chronic joint disease most commonly found in children, viz., tuberculosis of the synovial membrane, or of one or both bones entering into the structure of the joint.

Tubercular inflammation of the various joints is to common, often so insidious in its onset, slow but progressive in its course—the result, if left to itself, generally so disastrous—that the importance of an early diagnosis is apparent. Where the disease is

¹⁶ A. Wolff: *Lerchbuch der Haut und Geschlechts-Krankheiten*, 1893.

*Read before the New York Academy of Medicine, Section on Pediatrics, December 12, 1895.

recognized very early, and appropriate treatment adopted, the results are extremely satisfactory.

The burden of responsibility rests upon the general practitioners, and especially upon those whose practice is largely among children. It would seem at the present day as if no serious mistakes ought to be made, but every week the orthopedic surgeons see cases of Pott's disease which have been treated for lumbago or dyspepsia, and of hip disease which have been diagnosed as rheumatism or growing-pains. I must confess that I think most of the errors are made more through carelessness than ignorance, for inquiry usually elicits the information that the doctor never had examined the child, but treated the symptoms only.

The importance of a thorough and careful examination cannot be exaggerated. To my mind the physician who does not strip and examine from head to foot a child who is brought to him with a history of persistent pain or peculiarity of attitude or walk, is guilty of criminal negligence. Such superficial work in the past is responsible for many of the crippled and deformed beings who are a crying reproach to our profession. To be sure, it is often extremely difficult to make a positive diagnosis of joint disease very early, but haste is not necessary. If the symptoms at the time of the first visit are not clearly defined, see the child again, keep it under observation, and watch the suspicious signs of disease.

Since chronic disease of the spine, hip, knee, and ankle are the most common and important, and as the length of my paper must be limited, I shall speak only of disease of those joints.

Before proceeding to the subject proper, it may be well to say a few words concerning a term which I shall refer to, and which is not generally understood. I mean reflex muscular spasm, and consider it the one most important sign of chronic joint disease. By it is meant a tonic spasm or contraction of all or some of the muscles in relation to a diseased joint by which the sensitive articular surface is protected from the traumatism of motion. It is present only in those muscles which act upon the diseased articulation; it is almost without exception an expression of bone inflammation; it is the first sign to appear, and persists till healing has taken place. In some cases where the disease is extensive, all of the muscles are involved, and the joint is held so rigidly that ankylosis might be suspected. The slightest attempt at motion is met with resistance, and the muscles can be felt to quiver under the fingers, while the patient suffers no pain. Where, however, the case is seen early, usually quite a range of motion is allowed with perfect freedom, but a point is always reached where motion in one direction or another is checked before the full normal limit is attained. This resistance is a purely reflex one, for the administration of an anesthetic will cause it to disappear, and motion will be perfectly free unless some structural change has taken place in the joint or muscles. It is difficult to describe just the sen-

sation which this condition gives the examiner, and it requires some experience to differentiate it from the voluntary resistance of a frightened and crying child.

Hereditary history as an element in the early diagnosis of chronic joint disease is generally considered in the textbooks as very important, but my experience has led me to place very little dependence upon it except perhaps in the line of prognosis. It is no doubt true that the majority of the cases of chronic joint disease are tubercular in character, but this does not necessarily imply that the child had tubercular ancestors. Close questioning will probably reveal one or more cases of tuberculosis on one side or the other, but the same history can usually be obtained among perfectly healthy children. The sources of infection by the tubercle bacillus are so varied and numerous that there is no need of seeking further for a direct cause.

Traumatism also does not play such an important or exclusive part in the etiology as is supposed by some authors. It is rare to obtain a history of a distinct fall or other injury to the joint, but it is quite probable that a slight traumatism, such as most children experience in play, may produce sufficient congestion in the vascular epiphysis to afford a lodgment for the tubercle bacillus. It is well to note that when the history of a traumatism is obtained, the symptoms referable to the joint usually appear several weeks after the injury, for the action of the bacillus is very slow, and time is required for the development of the morbid process. Therefore, a distinct history of a traumatism or of tuberculosis in the family is of value when obtained, but the presence or absence of both, with the presence of decided symptoms, should have no influence in determining the diagnosis.

As a matter of fact, in the early stage of joint disease, the presence or absence of any one symptom is not sufficient to determine the true nature of the trouble. It is only by a careful grouping of symptoms and objective signs that a positive conclusion can be reached, and in children the objective signs are more important than either the history or subjective symptoms.

In tubercular disease of the spine the history and symptoms will vary, depending upon the region involved. In the first region, clinically, extending from the first cervical to the third dorsal vertebræ inclusive, which has the greatest range of motion, reflex spasm plays an important part in determining the diagnosis. The powerful muscles running from the trunk to the head are called upon early to protect the diseased vertebræ from traumatism. Usually the first thing noticed by the mother is the fact that the child carries its head stiffly, or holds it on one side. Frequently the position of the head resembles very closely that of torticollis, and Pott's disease in this region has been mistaken for wry neck, and treated for it, even to the dividing of the muscles. On the other hand, cases of wry neck have been treated as Pott's dis-

ease. A point of differential diagnosis is the turning of the head. In spinal disease the chin is turned toward the contracted muscle; in wry neck, away from it. A very characteristic attitude is a support to the head by placing one hand under the chin. Infants may be fretful and cry of when taken up, and older children complain of pain but many cases go on to marked deformity without any pain.

The nocturnal cry is common in this, as in all forms of chronic joint disease. The child goes to bed, sleeps quietly for a while, then starts up with a frightened cry, and may then waken or drop to sleep and again cry out. Examination of a child suffering from disease in this region will show the muscles passing up along the cervical spine to be rigid. If the disease involves the first or second cervical vertebra, rotation, flexion, and extension will be limited, and an attempt to get the child to perform these motions will be met with resistance and spasm of the muscles, even though no pain may be caused. In the lower cervical and upper dorsal regions, the disease produces limitation of flexion and extension only.

Difficulty in deglutition, cough, the presence of a tumor in the throat, etc., are late symptoms, and rarely precede deformity.

In the second region, extending from the fourth to the tenth dorsal, inclusive, an early diagnosis is often difficult before deformity appears, owing to the very slight mobility of the spine at this point. We are therefore forced to depend largely upon the history and subjective symptoms. Usually the parents will state that the child has held the back stiffly, with shoulders elevated, for some time, and has been disinclined to play with other children.

In young children a grunting respiration is frequently observed. There may be a complaint of pain in the back, but more often the pain is located in the epigastrium, due to irritation of the roots of the nerves. This fact has led to many mistakes in diagnosis, and the child has been treated for indigestion. So constant is this symptom that whenever there is a history of persistent pain in the abdomen, the dorsal spine should always be examined. Even when there is no deformity, there will always be a change in the respiratory movements. Inspection will show that the ribs are held somewhat fixed, and abdominal respiration is more prominent in the effort to restrict as much as possible the traumatism produced by the motion of the ribs. Slight compression of the sides will frequently cause pain.

When the third region is involved we should again expect to find signs referable to the muscles supporting this part of the spine; and such is the case. The child walks stiffly, takes short steps, and avoids every uneven place. When it desires to pick up an object from the floor, it does so in a peculiar and characteristic way. Instead of bending the spine forward, as a healthy child does, the back is held rigidly erect, and motion takes place at the knees

and hips, and the hand is often placed upon the thigh for support in the effort to rise. If the child is placed face downward upon a table, and one hand is placed upon the dorsal spine, while the other grasps the ankles and an attempt is made to hyperextend the spine, which can easily be done in a healthy child, the movement will be met by decided resistance from the sensitive muscles. This may be marked, producing rigidity of the spine; or slight, amounting only to spasm when the limit of hyperextension is reached. If pressure is now made on the pelvis, and extension of the thigh attempted, on one side or the other there will be resistance and spasm, due to irritation of the psoas magnus. If the spasm is marked, flexion of the thigh may be present, and the consequent shortening may produce a limp, which will be the first symptom noticed. In these cases the diagnosis of hip disease is sometimes made, but the differential diagnosis is easy and will be referred to under that head.

Of course we find here the nocturnal cry and other expressions of bone inflammation, as in the other regions of the spine.

The first symptom of hip disease in the vast majority of cases is a limp; and I wish here to emphasize the fact that a limp in a child is always a suspicious circumstance. Two peculiarities are observed in regard to this limp: First, it is generally worse in the morning, when the child gets up, and grows better with exercise; secondly, the limp frequently disappears for a time. It then reappears, and after a time becomes constant.

Next to the limp in point of frequency comes pain, and this may be in the region of the hip, or at the knee, so that in either case the hip should be examined. But many cases, if seen early, go through the whole course of treatment without pain. If the child is stripped and placed upon its back on a smooth, level table, superficial examination may detect no difference between the healthy and diseased limbs. There is no flexion, no swelling, no lowering of the gluteal fold, no deformity of any kind. Now grasp the sound thigh above the knee, flexing that joint, and by gentle movement put the hip-joint through all its motions to the fullest extent possible. This will not only gain the confidence of the child, but also inform the surgeon of the normal range of motion. Then take the suspected limb in the same way, and, holding the pelvis firmly, make slight traction on the thigh; then, with a slow, steady movement, using no force, attempt flexion, adduction, abduction, and rotation. If this is properly done, it will not cause pain, and yet if disease is present all or one of these movements will be restricted at some point by reflex spasm. Turn the child upon its face, and try extension of the thigh. The same resistance will be met as in caries of the lumbar spine, but in Pott's disease the other motions are not limited, and this constitutes the point of differential diagnosis.

Atrophy of the thigh is present very early in hip

disease, and is a valuable sign. It is present even when the child is walking about, and is not due to confinement of the limb, but to trophic changes, as a result of the disease. It can be determined only by careful measurements at the same point on each thigh.

Shortening is not present, as a rule, until some destruction of bone has occurred, though there may be an apparent shortening from the position of the limb.

I wish here to deprecate all rough handling of a joint. It is not necessary in order to make a diagnosis, and only causes injury. Pounding on the sole of the foot to elicit pain is as useless as it is barbarous, and the giving of ether for the purpose of discovering crepitation is almost a sufficient cause for a suit for malpractice.

In the knee, chronic disease may begin either as a synovitis or osteitis, in the lower end of the femur, or the upper end of the tibia, and the symptoms will vary according to whether the synovial or bony structure is the site of the initial lesion. If it begins in the capsule of the joint, the first change noted is swelling, which has come on without pain. This increases until the joint has a smooth, rounded, shining appearance—the tumor albus of the books. To the touch it will feel boggy and fluctuating, as if the capsule were full of pus; but if cut into, only a thickened membrane, lined with fungous proliferations, and a small quantity of fluid will be found.

The symptoms in this condition are very slight. There is no pain, and only a slight limp after walking, accompanied by fatigue. Motion at the joint is nearly normal, and there is no reflex spasm of the muscles of the thigh or calf. If, on the other hand, the disease commences in one of the bones near the articulation, then we have the signs of osteitic disease, viz.: no swelling, limp (worse after rest), pain, spasm, and limitation of motion. Flexion usually occurs quite early, due to contraction of the hamstring muscles, and atrophy of both the thigh and calf is an accompaniment.

It is rare that a chronic synovitis remains quiescent without treatment. The disease gradually extends, involving the bones, and the exact time is indicated by the change in the symptoms and signs. Both forms are distinguished from acute superlative trouble by the absence of local and general temperature.

Disease at the ankle may begin either as a synovitis or an osteitis, and the same difference in symptoms will be noticed. Most frequently a slight puffiness below the external malleolus is the first thing noted by the parents, though a limp may be the first sign of trouble. Reflex spasm is an early sign, and before long the foot assumes the position of extension and inversion.

In conclusion, let me again emphasize the importance of very early diagnosis in these cases. When deformity, pain, and abscess are present, the diagnosis is plain; but when that period is reached, much valuable time has been lost, and the child

is condemned to a future of suffering and deformity. Examine all cases thoroughly, and, if in the slightest doubt, get assistance. Remember that in spinal disease peculiarity of attitude, stiffness in walking, or pain in the abdomen generally precedes deformity; that in hip disease a limp, which may disappear, is usually the first sign of trouble in the joint; and that reflex spasm is present very early in all joint disease, and is the one most reliable sign of beginning bone inflammation.

New York: 161 West 23d street.

[For discussion hereon, see p. 56 of the present issue.]

INSANE PATIENTS IN PRIVATE PRACTICE *

By ALBERT WARREN FERRIS, A.M., M.D.

Assistant in Nervous Department, Vanderbilt Clinic, College of Physicians and Surgeons, New York

THAT is a rare home in which an insane patient can receive proper and judicious care. In the majority of cases, the insane man is indulged by the other members of the family, or is entirely beyond their control, or he must be prevented from doing harm to himself or others, or unusual sights and sounds must be kept from the knowledge of the neighbors, or forcible feeding must be employed. In few homes can the arising conditions be successfully confronted. Thus it becomes one of the earliest duties of the physician summoned to attend a case of insanity, to decide how long the patient can be kept at home with safety and benefit. It may be stated broadly that it is desirable to keep such a case at home as long as he can be adequately nourished, sufficiently exercised, and controlled with a small exhibition of authority, and as long as ascertainable delusions are not connected with his home surroundings. It is always desirable, moreover, to save the members of the family from implication in any coercive measures, if there is any danger that the patient, upon recovery, may connect them unpleasantly with his recollections of the experiences of his attack. One point thus far unmentioned must be emphasized: an insane patient should not be kept at home if young members of the family must unavoidably learn the details of the appearance, action, and conversation of the victim of a disordered mind. Exposure of impressionable children, especially girls, to such influences is always injurious. In some cases it results in morbid introspection and lasting anxiety. And these unfortunate mental habits pave the way for attacks of despondency and neurasthenia, if not actual insanity, which might otherwise have been escaped, in spite of hereditary taint.

Control.—The control of the patient should be in the hands of the physician. He should make his decisions with care, and adhere to them firmly. There should be no appeal from essentials. Tender-hearted relaxation of surveillance, at the patient's request, has in some instances resulted in the suicide of the patient; while the undeviating persistence of

*Read at a meeting of Neurological Section, New York Academy of Medicine, December 13, 1895.

the physician often wins the patient's respect and confidence.

In some instances a floor may be arranged for the protracted treatment of a patient in his home, guarding the windows properly and protecting him from himself and from others. With a competent nurse and occasional visits from the physician the case may be comfortably handled. It must be remembered that an insane patient cannot legally be confined in any house in this State but his home, unless such house be licensed by the State Commission in Lunacy.

Nutrition.—Patients passing through the depression which commonly precedes an attack of simple acute mania rarely need more assistance in securing nourishment than the serving of attractive food, and occasional urging to partake thereof. As this period of depression is rarely recognized by the friends as a pathognomonic condition, the physician is not summoned until it is at an end and mania is apparent. Then he elicits the testimony regarding the previous existence of the period of depression, and usually finds that the patient has been underfed. The lunatic with delusions that his food is poisoned or contaminated, or inedible; the melancholiac, especially if of the atonic or of the suicidal variety; the occasional lunatic, who conscientiously refuses to eat for any cause; and the merely obstinate lunatic—will require feeding. The physician is now confronted with a difficult condition. Reluctance on the part of the relatives to having coercion of any kind employed, absence of conveniences for the proper performance of feeding, and lack of practice on the part of the physician frequently combine to promote temporizing in the case of a patient to whom the loss of a single meal is a matter of moment. Insufficient nutrition is often promptly followed by loss of sleep, and a general deterioration ensues, which might have been avoided by early and generous feeding of a forcible nature, the patient having refused to eat.

In case of the failure of a direct order to eat given by the physician at the time food is brought in, let the camisole be put on, and food be offered the patient from cup or spoon. In many cases he will yield and take it under these circumstances. The camisole is a coat, made with very long blind sleeves which end in broad canvas tapes. Into each sleeve, near the distal extremity, is a slot or opening. The camisole is put on the patient with the solid part in front, and is fastened with buttons or laces at the back of the patient. It may be put on even a very violent patient without harming him, if one of the three necessary attendants passes a hand through each slot and gathers up the sleeves in wrinkles on his own arms till his hands appear within the body of the coat, and then grasps the patient by the hands, doubling the patient's fingers up and holding them within his own fists. The other two attendants adjust the sleeves and shoulders of the coat, fasten it at the patient's back, and tie the tapes about his waist.

If the patient refuses to eat after the camisole is on, he must be fed with a tube. The choice lies between an oral and a nasal tube. After an experience of over six years' residence with the insane, during which he fed many patients by both methods, the writer prefers the nasal tube. With the oral tube it is necessary to employ a gag of wood across the mouth, furnished with a central opening, through which the tube is passed, and the teeth must frequently be pried apart, in order to insert the gag. A metal oral speculum may be used, but the danger to the teeth is thereby increased. If the patient does not combat the feeding, a cork may be substituted for the gag, simply to prevent biting of the tube. But either cork or gag is very tiresome, and either renders it almost impossible for the patient to swallow. The oral tube also prevents talking, and this adds to the possible terror experienced by some patients. Furthermore, upon the withdrawal of the large oral tube, the meal which has just been exhibited not infrequently follows the tube and is vomited. If, on the other hand, the nasal tube is used, the patient can talk, can obey the frequent impulse to swallow, can breathe easily, and very rarely vomits upon its withdrawal. When feeding, I take my position behind the patient as he lies or sits, and pass the tube through the left nostril, unless a deformity prevents, an attendant standing on the right and behind the patient, steadying his head, which is encircled in a folded towel passing around chin and occiput. Another attendant holds the receptacle containing the food in front and on my right. I use a tube No 21 French or smaller, and inject the tube with a Davidson syringe. Milk, cream, eggs, solid or liquid peptonoids, and strained gruels constitute the foods generally used.

In some cases, the exhibition of a single meal by the tube furnishes not only the desired nourishment but also food for thought, which results in an acquiescence on the part of the patient when subsequent meals are served. In other cases, although essential to continue the feeding for a considerable time, the necessity for restraint during the process rapidly disappears, and the process is thus relieved of its most disagreeable feature. In still other but very rare cases, a patient will feed himself with a tube. The writer was credibly informed of one such instance in the case of a man who was dominated by a delusion that he could not swallow. This man fed himself with an oral tube and funnel, after learning the *modus operandi* by personal experience.

If patients persistently refuse to eat, they may be fed indefinitely with the tube. An insane man in the care of the writer refused food and was fed for 22 consecutive months. At the expiration of this period he voluntarily resumed eating.

Exercise.—The effort to exercise a patient kept at home is almost hopeless. It is rarely possible for him to leave the house without exciting remark if at all talkative or restless. Rarely is it possible

to take such a patient out in a carriage daily, protected with a camisole. Occasionally no attempt will be made to escape if, instead of the camisole, anklets are used. Anklets are made of leather, padded and lined with chamois, and fastened together. They are buckled about the patient's ankles so as to encircle his shoe-tops. They constitute a great protection. A patient of the writer, who had always behaved well when wearing anklets during her drives, on one occasion, when the anklets were omitted, sprang out of the carriage as it was crossing a bridge, and plunged into the stream.

Sedatives and Hypnotics.—Sedatives and other medicines must be used according to the individual case. They cannot be discussed in a brief paper. Suffice it to say that the writer has found that the most reliable hypnotic is trional, in a single dose of 10 to 35 grn., taken immediately before retiring. Its use may be continued, if necessary, for many weeks.

In order to remove a violent patient from home to a retreat, a single dose of hyoscine hydrobromate, grn. 1-100 or 1-50, administered hypodermically, will often produce somnolence, accompanied by dryness of the throat and mouth, insecurity of gait, and general muscular weakness. In this condition any patient may be taken into a drawing-room compartment of a railway train, with the help of one or two nurses, without exciting much comment. If the transfer be made at nightfall, no attention will be attracted. Although we have the right to call upon the police for aid in the transfer of certified lunatics, yet it is desirable to avoid any necessity of so doing whenever at all possible.

The amount of, and frequency of the use of hyoscine will be determined by the pulse-rate of the patient. After reaching the journey's end when hyoscine has been used, it is desirable to catheterize the patient unless early micturition occurs; for the drug is eliminated by the kidneys and partially paralyzes the smooth muscle fibers of the bladder.

Temporary Restraint.—A belt with attached wristlets may be used as a substitute for the camisole. The wristlets are padded like the anklets, and are furnished with steel staples, which slide about the patient's waist as he moves his hands, the belt being passed through the staples. In the case of a patient who refused to leave his home, and could not be enticed into a carriage, Dr. Frederick Peterson ingeniously suggested the employment of an ambulance, into which his patient was lifted, against his will; and, lying on the mattress, against which he was occasionally forcibly held, he made a journey of 20 miles with little discomfort.

The writer realizes that, in advocating any method of mechanical restraint, he is arraying himself against many physicians of experience, as well as many without experience, in these matters. Contemplation of the abstract principle of entire non-restraint is as delightful to him as to them. But the exigencies of practice occasionally undermine theory completely. The sentiment which

prompts us all to use persuasive rather than coercive measures with the sick should not be a barrier to the early application of mechanical restraint to an insane patient whose delusions incite him to violent or outrageous acts, or whose welfare demands his obedience. Those who advocate entire absence of restraint, nevertheless, keep their charges under lock and key, and in many ways restrain them of their liberty; and, when outbreaks of violence or destructiveness occur they resort to manual restraint at the hands of attendants. The writer's experience has convinced him that controlling a violent lunatic with a camisole has far less discomfort or cruelty in it for the unfortunate alien than the method used by the advocates of non-restraint, who place him supine upon a mattress, and have four attendants hold him down, one at each shoulder and one at each knee, till his strength is exhausted and their temper is lost.

The writer was once called to see a young lady suffering from acute mania, who had eaten no food for 24 hours, and who had destroyed furniture and attacked the members of her family with such violence that they had kept her in bed. They had tied her ankles together with a towel and fastened them to the bedstead. Her mother and an aunt sat on opposite sides of the bed, each holding a towel wound around a wrist of the victim, pulling with all their strength and weeping copiously. The wrists and ankles of the patient were contused and lacerated and bleeding. They viewed with horror a proposition to put the camisole on, for that would be use of constraint. The camisole having been adjusted without difficulty, the patient greatly relieved, sat up quietly in bed and willingly drank milk held to her mouth.

In all application of restraint for control, or for feeling, the patient must be told that it is done to help him control himself. Restraint must never be used as a disciplinary measure. It must be ordered on by the physician, and applied (whenever possible) in his presence. It must never be a method of punishment. It is only an expedient with which to meet a crisis. It is in no sense a method of treatment.

Certificates.—No institution in New York, authorized to receive insane patients, is allowed to admit a lunatic unless accompanied by a sworn certificate of insanity signed by two qualified examiners in lunacy, neither of whom is connected with the institution. Such certificate is valid for five days' detention. Within five days it (or a duplicate thereof) must be approved by a judge of a court of record in the county in which the patient resides. When so approved, the certificate must be used within ten days from the date of the examination by the two physicians. In spite of the simplicity and the imperative nature of these regulations, there are many who think an insane patient may be sent to a retreat without papers, if the papers follow, while others insist that every patient must be taken into court before a judge previous to confinement in an institution. Both are wrong. New York State

certificates are not valid in any other State. Most asylum superintendents in neighboring States prefer that New York patients shall come to them with New York certificates, new papers being prepared on their arrival, in accordance with the laws operative in the other State, the idea being that the New York certificates give authority for the removal of the patient to the border of New York State. At present, unfortunately, there is no legality in taking a man who is *non compos mentis* out of the State in this way. But until we have certificates which are mandatory in their character, and are really commitments, the present practice will be continued.

Travel.—There are many patients who need not go to retreats or asylums; many who are benefited by treatment in sanitariums where regular lives are led, and where systematic baths may be obtained. There are many who are improved by travel, or by residence in regions where daily outdoor exercise of a diversified character may be enjoyed. If their means permit, depressed patients should be treated out of an institution as long as possible. Frequently travel or outdoor life will work rapid changes in them. Under the constant care of a physician as traveling companion, even those bent on suicide may be treated away from home, and yet out of an asylum. The physician in such case must be experienced with the insane, unselfish, firm, and full of resource, in order to succeed. Such a method, pursued for several months or a year, will occasionally result in the restoration to healthful vigor of a mind apparently permanently affected. If such be the outcome, the family is saved from the stigma at present attaching to an asylum experience, and the patient is saved from a possible abandonment of all hope on entering a retreat.

It is to be hoped that ideas will change with reference to the moral stigma of insanity—in spite of the indisputable gravity of its heredity—and that people will cease to regard disease of the brain as any more disgraceful than disease of the lung. For if such a consummation be reached, there will be greater effort made to baffle heredity by hygienic living and choice of environment; there will be less concealment of predisposition to diseases affecting the mind; and there will be fewer marriages of people with similar hereditary taints.

It is a cause for congratulation that the old customs of "madhouses" and of "keepers" are passing away simultaneously with these old terms. Substitution of the word "hospital" for the word "asylum" is but an evidence that the lunatic is considered and treated simply as a sick man.

New York: 12 East 47th street.

URIC-ACID DIATHESIS, AND ITS TREATMENT WITH QUINALGEN

By CHARLES WILSON INGRAHAM, M. D.

There are a large number of morbid manifestations which in their superficial nature vary widely in extent and severity, but which can be traced

back with a reasonable degree of certainty to the same etiological factor or factors.

The relationship which exists between rheumatism, neuralgia, hay and bronchial asthmas, and certain forms of bronchitis has been so frequently observed and recorded by competent physicians as to leave no doubt whatever on the question. An attack of acute rheumatism, either muscular or articular, but particularly the latter, will, in the majority of hay-fever subjects, entirely relieve a prevailing attack, and, should the rheumatic manifestations continue during the hay-fever season, the subject will experience almost complete, if not entire, relief from the latter affection. The same may be said of neuralgia attacks, and of certain nervous affections. They act after the manner of an antidote for the hay-fever poison. It would appear that a peculiar diathesis is capable of manifesting itself in the form of rheumatism, asthma, neuralgia, and certain nervous affections; that these so-called diseases are only symptoms of a certain constitutional defect. The various therapeutical agents which we use for the relief of these conditions still further bear out the theory that they are but symptoms of an identical systemic condition. We give iodide of potassium in our treatment of chronic rheumatism, as well as in the treatment of chronic bronchial asthma. Arsenic is employed in the treatment of both. We also give salicylate of soda for the relief of acute rheumatism, for neuralgia, certain nervous affections, and asthmatic paroxysms; and, lastly, quinalgen seems to possess a powerful influence over this range of affections.

While the fact that we use the same remedies in the treatment of both acute and chronic forms of these diseases is no proof by itself that they are all due to the same cause, yet it goes to still further prove their unity of origin. Hay-asthma subjects, as a rule, suffer from rheumatism during the winter months. After hay asthma has persisted for several years, it usually develops into chronic bronchial asthma, and this fact gives us a direct connecting link between rheumatism and asthma. Rheumatism is accepted by many as a distinct and independent disease, possessing a definite individuality, but I think in the light of our present knowledge this conception must be relegated to the past. The primary cause of these various manifestations is, I believe, usually ascribed to an excess in the system of uric acid—a condition known as uric-acid diathesis. Certain it is that persons suffering from some one or more of the above diseases usually have an abnormal appetite for lithias and other uric-acid solvents, and following their use there generally results an improvement more or less lasting, according to the severity of the affection and the length of time the remedy is continued. Perhaps one reason why this series of manifestations has proved so difficult to permanently relieve is because we too often seek to overcome the painful symptoms, and, this accomplished,

the patient soon becomes careless in following out any methodical course of treatment based upon the removal of the cause. It is an old-time proverb, whether of professional origin I do not know, that "Neuralgia is a cry for better blood." While this to a great extent may be true, this painful affection very frequently occurs in persons whose blood certainly is not impoverished, and there are many conditions accompanied with more or less extreme anemia in which neuralgia is conspicuous only by its absence. Anemia may oftentimes be present with neuralgic affections, but it is more frequently secondary to the effects of an excess of uric acid, which must be removed before the anemia can be permanently relieved. A uric-acid diathesis is without doubt destructive to the red blood-corpuscles.

Several months ago my attention was called to quinalgen, a coal-tar derivative, as a remedy for the relief and cure of neuralgia and rheumatism, supposedly by removing the constitutional cause for permanent effect, and by analgesic properties for the relief of acute symptoms. The remedy has met a very pronounced success in the hospitals of Germany, and its value in my practice has fully borne out its claims. One of the most pronounced and immediate effects is a stimulation of the urinary secretions, the urine becoming very abundant and of an extremely high color, so much so as to occasionally alarm the patient, although such an alarm would be groundless, as this symptom almost immediately disappears when the remedy is discontinued. This stimulation of the kidneys seems to relieve the system, and an improvement in most cases soon takes place, which is remarkably lasting even when the drug is administered but a short time. In rheumatism I have observed its most pronounced effects, and I place the utmost confidence in quinalgen for the relief and cure of this disease. One case, in particular, of muscular rheumatism of long standing, which gave rise to very painful symptoms following exposure, and with certain changes of the weather, has apparently been entirely relieved. In doses of half a gramme, I have found it of marked value in headache and certain forms of neuralgia.

On the theory that hay and bronchial asthmas were due to uric-acid diathesis, I have used quinalgen quite extensively in their treatment. Though the time is too short to report any positive results, from what I have already observed, there is reason to believe it will become one of our most reliable remedies for the cure of asthmatic affections, although its use should be long continued to obtain permanent results. When its administration is to be long continued, I usually prescribe 1 gme. daily in divided doses. One thing very much in its favor is that it does not occasion any gastric disturbances, as is the case with many antirheumatic remedies.

While we may depend upon quinalgen to accomplish much in overcoming the uric-acid diathesis, to obtain the best results one must see that the patient

observes the laws of health in his mode of living. Digestion and assimilation, which are often at fault in uric-acid disorders, should receive simultaneous attention, and, when anemia is pronounced, some mild chalybeate should also be administered. So far as my experience has shown, quinalgen appears to be absolutely harmless, and I have never known the slightest depression or other disagreeable symptoms to follow its use.

Binghamton, N. Y.

STRAY ITEMS

Bromides as Tenifuges—J. Frank (*Wein. med. Presse*, 1895, XXXVI, p. 1797) reports a case in which sodium bromide unexpectedly acted as a powerful tenifuge.

The case was that of a young, robust girl, in whom violent eclamptic attacks suddenly set in, and recurred at irregular intervals for about ten days. This case remained obscure until the patient passed several yards of tapeworm, after which event the attacks ceased. Dr. F. is inclined to think that the expulsion of the tapeworm was the effect of the sodium bromide, of which he had prescribed about 15 to 20 gme. (4 to 5 dr.).

Necessity of Frequent Visits.—The Supreme Court of California (*Todd vs. Myers*, 40 Cal. 355), in an action brought by a physician for professional services—the defense being that the visits were too frequent and not necessary—rules that "the defendant having admitted the employment of the plaintiff as a physician to treat his wife and children, the plaintiff was the proper judge of the necessity of frequent visits; and, in the absence of proof to the contrary, the court will presume that all the professional visits made were deemed necessary, and were properly made. It would be a dangerous doctrine for the sick to require a physician to be able to prove the necessity of each visit before he can recover for his services. This is necessarily a matter of judgment, and one concerning which no one save the attending physician can decide. It depends not only upon the condition of the patient, but in some degree upon the course of treatment adopted."—*Medical Record*.

Bismuth Subnitrate and Calumba in Acute Gastro-Enteritis of Children.—E. Trabandt (*Sem. méd.*, 1895, XV, p. ccxxx) has found that in acute affections of the digestive tract occurring in children, bismuth is especially efficacious when administered in infusion of calumba root. The formula he recommends is the following:

Calumba Root.....	1 gme.
Boiling Water.....	75 gme.
Infuse, strain, and add:	
Bismuth Subnitrate.....	3 gme.
Syrup Orange-flowers.....	15 gme.
Shake well! Teaspoonful every two hours.	

Under the influence of this medication, the author asserts, the vomiting stops after one or two doses have been taken, and the diarrhea is controlled within twelve to twenty-four hours.

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A PROSPEROUS New Year to our readers.

WE are pleased to note that the *Medical News*, hitherto published in Philadelphia, will, on January 1, move its editorial and publishing offices to the medical metropolis and become a neighbor of the BULLETIN, which shows good taste on the part of our esteemed contemporary.

FOLLOWING the lines of some of the earliest reports upon the use of antitoxin, the latest statistics of the Willard Parker Hospital, of this city, have confirmed the statement that the earlier the administration of antitoxin after the inception of the disease, the greater is the percentage of recoveries. Very few deaths occur among those treated in the first twenty-four hours. From the fourth day on, injections seem to have but little influence upon the course of the disease. Our efficient Board of Health have made many important moves to facilitate the general use of antitoxin among the very poor of the city. Inspectors are sent at the request of any physician, to administer the serum, or the Board will furnish antitoxin, upon very simple conditions, free of charge, for use in cases where payment therefor would be a hardship.

But no provision has as yet been made to facilitate quick communication with headquarters. The physician who meets in charitable practice with a case of pronounced or suspected diphtheria must wait until he completes his round of work, to write a letter which may possibly not reach the Board of Health in season for action that day, or must use the public telephone at his own expense. Prompt notification of contagious disease, and especially now of diphtheria, should be encouraged in every possible way. Service so rendered is rendered to the commonwealth.

If six, twelve, eighteen hours' delay in the administration of the curative serum may sacrifice a human life, the Board of Health should promptly arrange that the public telephone service of the city be free to all physicians for this purpose. The circulars of the Department, it is true, urge the use of the telephone, but they should also announce that such messages will be transmitted free. This is already the case with messages summoning the Department ambulance for transportation to the hospital. Statistics prove that it is equally important to hasten the visit of the inspector with antitoxin.

IT is gratifying to all who are interested in the improvement of the city hospitals that the Mayor finally ignored the influences that were working for the reappointment of the former president of the Department of Charities, and appointed another man. Of course medical men cannot but feel that much that is essential to the proper arrangement of the hospitals under the control of the department will suffer because of the absence of a medical man in the Board. It is always hard to impress laymen with the importance of spending large sums of money in surgical apparatus and sterilizing-plants, yet this is one of the pressing needs of all the hospitals at the present time.

No time should be lost in providing every hospital in the department with a properly equipped operating-room.

There is much that the Commissioners can do in the way of improving the sanitary condition of all the hospitals; but first of all they should make a clean sweep of all the old superintendents.

Nowhere is this more important than at Randall's Island, where there is constant scheming on the part of the superintendent to retain the control of the nurses and to interfere with the House Staff and Medical Board. This superintendent has just had

her salary increased five hundred dollars a year. Now, let some one else reap the benefit of the increase. Then, instead of giving the new superintendents ten additional nurses of the kind usually employed on this island, employ a proper supervising nurse and send the pupil nurses up from the City Training-school. Miss Darsche will soon reduce the infant mortality on the island when she is allowed to have the direction of the nursing without the interference of the present superintendent.

Room should be made, too, on this island for many more young children by sending away those that are no longer ill and who are older than the legal age of inmates. Many of the latter children are retained because they work regularly and so make a good record for the Industrial School. We imagine if the records of this school were carefully studied it would be discovered that the feeble-minded have little to do with the working of the department.

It has always been interesting to observe the class of children who are selected by the superintendent for instruction in the School of the Feeble-minded. She has always claimed that she knew more about the idiots and feeble-minded, in the way of their capacity for acquiring knowledge, than the medical staff; and it is in pursuance of this superior knowledge that she has assigned deaf and dumb but otherwise bright children to the incurable idiots' pavilion, and has undertaken the instruction of hopeless microcephalics, while the epileptics are allowed to go untaught. There is room for a careful investigation here.

We should suggest to the Board of Health that they investigate the plumbing in the city hospitals and the flushing supply, and also that they consider whether sanitary laws favor the dumping of the garbage from the island hospitals into the river. Perhaps the State Board of Health would be interested in this subject.

A NEW JOURNAL.—The *Journal of Experimental Medicine* is shortly to make its appearance in the field of medical journalism. The journal will be supervised editorially by William H. Welch, M.D., professor of pathology in the Johns Hopkins University, Baltimore, Md. The periodical is to be devoted to original research and investigation in medicine, pathology, bacteriology, and the allied branches. A journal of this character, with its staff of collaborators composed of men of stamp and recognized ability in this country, will be heartily welcomed. The influence exerted by scientific

medicine and scientific works in the search for truth and the establishment of absolute and accurate *data* cannot be overestimated.

The journal will be published quarterly, and the first issue is to appear this month. We wish the promoters every possible success in the establishment of this new journalistic institution for the dissemination of scientific thought.

A CHAIR OF CLIMATOLOGY.—The faculty of the New York Post-graduate Medical School and Hospital has recently created a class of climatology, Dr. Leonard Weber, of New York, appointed professor to this branch. In this department a series of lectures will be given relative to climatological influences upon the body in diseased conditions. Particular attention will be devoted to the consideration of the resorts and geographical areas especially adapted to individuals the victims of disease most beneficially influenced by climatic change. Such instruction is intended to acquaint the physician with *data* who has not the time or necessary means to personally visit and determine the advantages of portions of this country and the continent considered to be suitable for patients whose conditions necessitate change of air. Attention will also be directed to the subject of hygiene, baths, and mineral waters, their indications and therapy.

Sobriety Awheel.—Tolstoi, philosopher, moralist, and novelist, is an old man now, as men go, all gray and respectable. The bicycle is yet very new, and is considered by many as a frivolous sort of thing, although many dignified professional men are riding and recommending it. The good, conservative people, who abhor the new order of things, will find it very difficult to picture to themselves a bicycle with a Tolstoi astride its metal backbone. But no matter how incongruous it may seem, the somber man does ride the wheel. The bicycle will not degrade Tolstoi; on the contrary, he will help to give it caste. The chiefest indignity is suffered, not in riding, but in learning to ride, the two-wheeled vehicle.

Drugs in Exophthalmic Goiter.—Abram (the *Lancet*, 1895, XXVII, p. 1221), in the course of an article on exophthalmic goiter, says: "Drugs in my experience do but little good, although it is interesting to note the reputed value of belladonna from its well-known action on the salivary glands. In operations intended to diminish the amount of thyroid-gland tissue there exists a new and better prospect of affording relief, if not cure, to the subjects of Graves's disease."

GENERAL MEDICINE

In charge of **WILLIAM HENRY PORTER, M.D.**

Professor of Clinical Medicine and Pathology at NEW YORK POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL; Pathologist to RED CROSS HOSPITAL

and
WILLIAM CHARLES GUTH, M.D.

Instructor in Pathology, General Medicine, and Intubation at NEW YORK POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL

With the collaboration of

ADOLPH ZEH, M.D.

Instructor in Pathology and General Medicine at NEW YORK POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL; Attending Surgeon to RED CROSS HOSPITAL AND INFIRMARY

ADOLPH BARON, M.D.

Lecturer on Diseases of Children at the NEW YORK POLYCLINIC

HENRY T. BROOKS, M.D.

Instructor in Histology and Pathology at NEW YORK POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL

JOHN HOCH, M.D.

Clinical Assistant in General Medicine and Pathology at NEW YORK POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL

WILLIAM VISSMAN, M.D.

Lecturer on Histology, Pathology, and Bacteriology at NEW YORK POLYCLINIC

WILLIAM Y. FINCH, M.D.

Clinical Assistant in General Medicine and Pathology at NEW YORK POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL

GEORGE W. BLANCHARD, M.D.

Assistant Pathologist and Assistant in Genito-Urinary Clinic at WEST SIDE GERMAN DISPENSARY

Action of Rectal Injection of Sodium Chloride upon the Intestinal Tract.—Dauber (*Deutsche med. Wchnsch.*, 1895, No. 35, p. 543)

Some time ago Grützner published an article in which he advanced the claim that selections of sodium chloride when injected into the rectum of animals caused increased peristalsis, to the extent that particles of insoluble matter suspended in the solution find their way into the small intestine and stomach. Doubting the conclusions drawn by Grützner, Dauber determined to conduct a series of experiments of a similar nature. In his experiments he employed white mice, rabbits, dogs, and white rats as recipient agents, injecting small quantities of charcoal, indigo, and cinnabar suspended in 0.6 to 1 per cent. solution of sodium chloride. After four to six hours had elapsed the animals were killed, the intestine removed and examined microscopically. The experiments conducted by Dauber tend to prove that in all cases where it was possible for the animals to lick the anus or eat the feces, the foreign particles could be found in the stomach. When care was exercised to avoid these habits of the animals, the result was a *negative* one. Dauber claims that in normal conditions of the intestinal canal it is absolutely impossible for particles injected into the rectum to go beyond the ileo-cecal valve.

Observations upon Acetonuria and Coma Diabeticum.—F. Hirschfeld (*Zeitschrift f. klin. Med.*, 1895, XXVIII, Nos. 2-3, pp. 176-209).

The results of these observations may be stated as follows:

In every healthy individual from whose food all carbohydrates are withheld, an increased excretion of acetone through the urine occurs, which continues to rise until the seventh or eighth day, then, except for slight variations, remains at a uniform height.

The amount of acetone excreted daily amounts to 200 to 700 mg.

In high acetone excretion—*i.e.*, when about 0.3 gme. of acetone per liter, or sufficient aceto-acetic acid to yield this amount on distillation is present—Gerhardt's chloride of iron reaction takes place.

In rich proteid diet the acetonuria is less than in moderate proteid diet. Whether the requirements

of nutrition are met by a liberal supply of fat or not, the amount of acetone discharged with the urine remains uninfluenced. Aceton excretion is therefore not dependent upon the decomposition of proteid bodies. During hunger, therefore, about as much acetone is excreted as when the requirements of nutrition are met by moderate amounts of proteids and abundant supply of fat.

Under otherwise favorable conditions, acetonuria is very variable in different individuals experimented upon. This refers less to the slight acetonuria observed under physiological conditions than to the increase of acetone excretion, which is observed in all persons after exclusion of carbohydrates from the food. An explanation for this cannot as yet be given. According to the author's researches, under otherwise the same conditions old persons appear to discharge more acetone through the urine than young and strong individuals. However, the number of previous experiments is too small to permit of positive conclusions.

Pathogenic Blastomycetes in Man.—G. Corselli and B. Frisco (*Cent. f. Bakt. u. Parasitk.*, 1895, XVIII, Nos. 12 and 13, pp. 368-373)

Last December a case of sarcoma of the mesenteric glands with milky secretion was received at the University clinic at Rome. At the autopsy there was found a neoplastic mass which consisted of new formation of lymph glands of the mesentery, and many small ulcers the size of a lentil upon the mesentery and small intestine; besides, there was a large amount of milky fluid in the thoracic and abdominal cavities wholly similar to that observed during the life of the patient. Microscopical examination of the fluid withdrawn from the patient during life showed forms of variable size. Some were small and spherical, isolated or grouped in fours; others isolated and of medium size, sometimes with appendages in the form of buds; others, again, were still larger, about the size of a liver cell, and contained one or more granules. All of these forms stained readily with methylene-blue, Löffler's solution, Bizzozero's hematoxylin, with an equal mixture of malachite-green and 1 per cent. safranin, and with carbol-fuchsin.

All of the above described forms were also met with in pure cultures, obtained post mortem from the fluid taken from the thoracic cavity and ulcers. The pathological material was transferred to the ordinary nutrient media and also to fucus. With the latter only was a growth obtained, especially when it was neutral or alkaline. From the fucus, colonies were secured with bouillon, gelatin, simple agar, glycerin agar, and sugar agar. In all other nutrient media, including potatoes, fruits, decoctions of fruits, the results were always negative.

The appearance of the colonies on fucus, gelatin, and agar-agar always remains the same. With moderate magnification, the colonies, which are mostly circular, are seen to be composed of a mass of glistening granules. When a preparation is made from one of these colonies, or from a bouillon culture, and examined with strong magnification, rounded cells can be seen, which in size and refractive index resemble the small forms met with in the pathological material. These cells are surrounded by a thin membrane and contain a mostly homogeneous protoplasm. At some points the protoplasm has a granular appearance; these granules become more and more densely arranged, later taking the form of rounded bodies, which, because of their greater refractive index and variable behavior

toward stains, become more prominent; they finally rupture the membrane, become free, and then represent the first stages of development of the parasites. All of these observations can best be made in hanging drop culture. Another mode of development is that of budding, which is seen in all cultures, especially at the outset. In this case, under certain conditions not yet determined, the new cells give the impression of tubular appendages to the mother cells, thus manifesting a disposition to the formation of mycelial prolongations.

The morphological and biological characters of this parasite are apparently those of the blastomycetes. The constantly negative results in cultures upon fruits and the slight disposition of the parasite to develop in acid nutrient media give rise to the belief that it has suffered alteration in its vital characteristics through residence in the animal tissues as a parasite; and as it has probably acquired new characteristics adapted to parasitic existence, others which are peculiar to the saprophytic blastomycetes may have been lost. Be this as it may, it is a fact that only the slightest trace of alcohol could be detected in sugar solutions in which the parasite had been grown for a considerable period.

In microscopical sections of the human tumor the following is observed: Between a stroma of connective tissue are grouped masses of small cells with spherical nucleus and slight amount of protoplasm; these cell elements readily take up dyes, though here and there between these zones of intensely stained tissues are seen other transparent zones where the primitive cell structure can be observed, and the corresponding cell elements in the various phases of degeneration have lost the property of staining. In the stained as well as in the unstained portions are found granular, blackish-brown masses, which on slight magnification resemble true pigment granules. On strong magnification these masses are seen to consist of a great number of blackish, round bodies of variable size; a few manifest distinct developmental processes, with bud formation. Sometimes the production of one or two rounded cells, formed by extrusion of the protoplasm of the mother cell, are seen; sometimes a conical, straight, or slightly bent process is observed. The cells provided with such processes are often arranged in groups and so distributed as to form mycelial nests. Besides these black nests, other cells of irregular form and of yellowish color are observed which have connection with the black bodies and the above mentioned mycelial prolongations.

The author believes the black bodies to be spores of the blastomycetes, and the yellow-colored elements blastomycetes cells in different stages of development.

Guinea-pigs, rabbits, and dogs were inoculated with the milky fluid obtained under antiseptic precautions from the patient, as well as with the product of the pure cultures. On inoculation with 5 c.c. of the milky fluid, or 2 c.c. of a ten-day-old bouillon culture, guinea-pigs died within a period of 25 to 30 days. At the autopsy the lymph-glands of the mesentery were swollen to the size of a large nut, while an innumerable number of spherical nodules were found in the mesentery. Similar and very numerous nodules were present along the superficial and deep lymph-vessels of the axillary and inguinal regions.

On microscopical examination of these tumors the same conditions observed in the original human tumor were present, except that in the tumors of the guinea-pig the mycelial arrangement was less pronounced and the budding and yellowish forms more

abundant. Essentially the same state of affairs was noted in rabbits.

With the discovery of this parasite, which is capable of originating malignant neoplasms, the author believes a new direction is opened for the study of ascites chyleforme and the relation which exists between these fluids and the malignant tumors of man.

Nephritis Viewed from the Standpoint of Individual Cell Life.—W. M. Memminger and W. K. Evans (*Medical News*, 1895, LXVII, p. 480)

The physician's inability to contend with numerous physical conditions is due to the fact that he treats disease from the symptomology of defined organs, as the heart, liver, lungs, etc., and loses sight of the primarily diseased or irritated organs, viz, the ultimate protoplasmic particles or cells of which these structures are composed. The cell is an organ in itself; it must get food material; it constructs, generates, and eliminates. Its functions are as well defined as those of major organs. It can perform these functions under normal condition, but irritation perverts them. As all tissues are made up of cell-organs, an individual's health depends directly upon them.

Applying these facts to nephritis, generally considered a disease of the kidney, followed by various constitutional changes, the question arises, Is nephritis or albuminuria primarily a disease of the kidney? The authors believe it is not. Primarily nephritis is acute or chronic irritation of the cell-organs of the whole body, causing cell-vomiting or the elimination of cell-food, that is, albumin. Disease is irritation. Irritate the lungs, the stomach, the intestine, and there arise peculiar manifestations. If this is true of large organs, is it not true of the individual cells in the entire body? When an irritant is brought in contact with a cell through the circulation, there results a perversion of function—an inability to utilize the materials furnished to promote nutrition, and a throwing off or vomiting of them. The stomach rejects crude food materials, and the cells reject peptonoids and albuminoids.

The accepted causes of nephritis are: scarlet fever, pregnancy, alcoholism, mental anxiety, all the eruptive fevers, diphtheria, gout, pyemia, acute articular rheumatism, long-continued cystitis, extensive cutaneous burns, malaria, chronic dysentery, intestinal ulceration, habitual exposure to wet and cold, cantharides, turpentine, oil of mustard, phosphorus, arsenic, nitrate of silver, lead, and mercury. Each of these causes a specific irritation of the cell-organs of the entire body. The tendency of an acute inflammation caused by an irritant is to become chronic. The treatment to prevent this is directed to the symptoms of the affected part, neglecting the irritated cell-organs throughout the body. If the primary irritation has no attention given to it, the cell-organs will just as surely become chronically inflamed as the major organs. In acute gastritis there is acute vomiting; in acute cell-irritation there is acute cell-vomiting or acute albuminuria. With chronic irritation arise chronic cell-vomiting or chronic albuminuria, resulting in chronic nephritis.

From this standpoint albuminuria is a direct symptom of either acute or chronic general cell-irritation; the hypersensitive cells throw off their food material. Albuminuria and the kidney-changes are secondary. From perverted function or throwing off of cell-food, malnutrition of the cell occurs, and a

consequent degeneration of the entire system. This is seen in the low-grade tissue evolved in nephritis. Food material taken into the blood, if refused by the cell-organs, must be eliminated. As the kidney is the principal source of elimination of the products of the blood, it suffers in like manner. The kidney suffers not only by being the avenue of elimination, but structural changes occur in it, due to the tissues being of low vitality. Like changes occur in other parts of the body; evidences of cell-impoverishment are found in the primary enlargement and subsequent contraction of organs and general sclerosis, the pale, flabby, and edematous tissues. Functional albuminuria, so called, is the result of general cell-irritation. Such a condition may result in chronic interstitial nephritis. All that is necessary is to let the primary acute cell-irritation, without structural change, become chronic.

Treatment should be directed to remove the cause of the general cell-irritation and to soothe the irritated cells. The general treatment should be to promote good hygienic conditions, to abolish all forms of mental anxiety, secure rest and proper diet. The ordinary milk diet would seem to be best, as it is a non-irritating food. Ordinary food is not irritating to cell-life; it is often made so, however, when prepared for the palate. Rare, wholesome meat, without condiments, except a little salt, may be taken freely. All the cereals may be used. The white potato should be the principal vegetable. It is generally believed that nitrogenous food directly increases the amount of urea in the blood; this is true, but it is not the taking of nitrogenous food that increases the urea, but the refusal of the cells to assimilate and use the albuminoids furnished to them. Urea is not only a product of tissue destruction, but of food destruction also. Of drugs, opium is the most valuable in that it allays cell-irritation. It should be given in as small quantities as will meet the indications; it can be continued indefinitely. Cod-liver oil is strongly indicated because in doses suitable for assimilation it improves the condition of the nervous system, causes an increase in urine and perspiration, increases the appetite, improves nutrition, increases the number of red blood-cells, increases healthy cell-formation, and has a general alterative effect. Irritating drugs, such as iron, quinine, cantharides, strychnine, etc., should be avoided.

A Simple and Delicate Method of Qualitative and Quantitative Analysis of Urine for Mercury.

—Adolf Jolles (*Wien. med. Presse*, No. 43, 1893, pp. 1618-1620)

A small quantity of granulated gold is added to the suspected urine. The mercury compounds are now decomposed by adding zinc chloride and agitating while warming. The mercury thus liberated forms an amalgam with the gold, and quickly settles to the bottom. The fluid is then poured off and the amalgam cleansed. Then a few drops of concentrated nitric acid are placed upon the amalgam to dissolve the mercury. This solution is diluted with distilled water, placed in a test-tube, and cooled. If to this an equal volume of a saturated solution of tin chloride be added, the presence of the minutest quantity of mercury will produce cloudiness. This reaction will take place when the urine contains but 0.0002 gme. in 100 c.c.

If the dry method is preferred, the amalgam is washed with water and first treated with alcohol, then with ether. It is then placed in a glass tube about 10 ctm. by 1 ctm. in size. This is exposed to

dry heat of 40° C. for about five minutes. Then the amalgam is heated to a slight glow, when the mercury will precipitate on the side of the tube. Now, if mercury is removed it will be very easy to weigh the tube containing the gold and determine the amount of mercury.

The time required for the above procedure does not exceed twenty minutes.

The granulated gold is prepared as follows: 16 to 20 gme. of chemically pure gold chloride are dissolved. This solution is heated, and, while agitating, burned magnesia added until the fluid above the precipitate is absolutely colorless. It is then heated a few minutes, and decanted. The precipitate is washed with water until the wash-water does not show a chlorine reaction. The gold and magnesium compound is dried, and concentrated nitric acid added. It is then warmed over a water-bath until the supernatant liquid is clear and colorless. Then the sediment is thoroughly washed with hot water and incinerated in a crucible, then glowed in the blow-flame.

The Diagnosis of Aneurism.—A. Pearce Gould (*The Hospital*, 1895, XIX)

The author discusses the diagnostic importance of some of the various symptoms produced by aneurisms.

The diagnosis of an aneurism depends upon finding: (1) a tumor, and (2) the communication of that tumor with the lumen of an artery.

A "pulsating aorta" is often mistaken for an aneurism, its pulsation at times being very distinct, and certain local signs of pain and dyspepsia occur which can easily be assigned to pressure of a tumor growing behind the stomach. By careful palpation there will be found to be no tumor and no enlargement of the aorta, and so aneurism can be excluded.

Where there is any doubt as to the presence of a tumor, the author mentions this simple procedure of placing the patient in the kneeling position and with belly quite lax. If on placing the hand very gently on the abdomen and keeping abdominal muscles relaxed, the examiner feels a distinct pulsation, then it is probable that there exists an aneurism of one of the high abdominal arteries; if no pulsation is felt when the viscera are allowed to fall from the spine to the aorta, it cannot be caused by a tumor, and a tumor is a prime requisite in the diagnosis.

The pulsation occurring from an abnormally placed artery may be attributed to an aneurism. In very thin individuals the normal arteries may be mistaken for aneurisms, particularly at the root of the neck and the groin; if these arteries are atheromatous, causing them to become more prominent, or if they have become more tortuous, the mistake in diagnosis is still more liable to occur.

All these errors can be avoided by noticing the absence of a distinct tumor.

In intrathoracic aneurism the presence of a tumor can be recognized by the signs of pressure upon and displacement of certain of the viscera, especially the lungs.

After a tumor had been found, we are next to find out that such a tumor communicates with the lumen of an artery. An aneurismal tumor is always over and fixed to an artery, and cannot be detached from or in any way separated from an artery.

It is important to remember that every pulsating tumor is not an aneurism; the pulsation must be of such a kind as to show that the tumor is filled out by blood passing into it from the artery at each heart-beat. This pulsation is expansile, and is felt

in every part of the tumor. Another sign of aneurism is shrinking of the tumor when the artery above is compressed.

The bruit and the thrill are of no significant value; while the pressure signs are of some diagnostic value.

A tumor which is the seat of expansile pulsation, and which empties a part of its contents into the artery when the direct flow of blood through the vessel is cut off, the author says, must be an aneurism.

Vaccine Immunity.—Profs. Beumer and Peiper, of Greifswald (*Berl. klin. Wochenschr.*, 1895, XXXII, p. 735)

All research with regard to the active principle of vaccines has been unsuccessful. Nevertheless, the microparasitic character of the vaccines has not been denied. And, again, it is granted that those micro-organisms call forth an action in the bodies of the vaccinated which renders the latter immune from the poisons of the variola vera for a number of years.

The duration of this immunity varies between wide limits, lasting in some persons throughout life, and disappearing in others after a certain number of years. An imperial commission on vaccination has found the average duration of the immunity to be ten years. One of the writers has shown that this average is placed too high, since vaccination was successful in 93.75 per cent. of the cases examined ten years after the first vaccination. Glogowski and Biedert state that the period of immunization is from six to seven years in the majority of cases and that in some it is even less. This does not, however, detract from the great value of vaccination as practiced at the present time.

Reasoning by analogy from the experimental and clinical results obtained from the blood-serum-therapy in tetanus, diphtheria, typhoid, cholera, and other diseases, we must conclude, from the truly wonderful results of vaccination for immunization, that immunizing substances are developed in the body, or, more correctly, in the blood, of the vaccinated. It seemed reasonable to suppose that these substances should be found in the blood-serum of those individuals who had been vaccinated, or in the blood-serum of those who had lived through an attack of variola.

Gundobin experimented on this line on a calf two and one-half months old. This calf was immunized. Twenty-six days later vivisection was performed and the serum (28 c.c.) was injected subcutaneously into another calf. This second calf was vaccinated five days thereafter. In a few days several nodules were found on some of the incisions, and the wounds were slightly reddened and infiltrated. All the nodules were covered with scabs, but without the formation of pustules. The temperature of the calf was not markedly raised. In a fortnight the points of vaccination were completely healed.

Landmann, working on the same lines, was unable to discover immunizing substances in the blood-serum of vaccinated individuals.

Centanni's experiments seem to prove that the immunity does not depend on the presence of immunizing substances in the blood-serum, and that these substances may be absent from the blood-serum, and the individual still be highly immune.

Llewellyn Elliot, of Washington, testing the influence of vaccine serum on variola according to the method employed by Landmann, gives his results as

follows: Vaccine serum modifies variola, exerting its influence by aborting the course of the papules or vesicles and causing the postules to dry up more quickly and without leaving cicatrices behind.

The results of Straus, Chambon, and Menard lead to directly opposite conclusions. This fact led the authors to inquire into this subject anew. They made several elaborate experiments on calves, and although they had been of the opinion that they would be able to prove the existence of immunizing substances in the blood-serum or in the blood of vaccinated animals, these experiments have convinced them to the contrary. They sum up their results as follows: In the blood or in the blood-serum of vaccinated calves there are no "protective substances" which, when introduced into other calves, can give them immunity, or, at least, they are at present in such small quantity that their practical application seems to be excluded.

Some Suggestions Concerning the Examination of Blood.—Jo. H. Linsley (*Med. Rec.*, 1895, XLVIII, p. 685)

Much valuable information concerning a patient's condition can be obtained by examining a drop of his blood with no greater aid than a good microscope, clean cover-glass and slide, a little vaselin, a slip of paper, and a steel pen. The *modus operandi* is as follows: Around the edge of a clean cover-glass place a narrow, thin flim of vaselin by means of a triangularly folded piece of paper. Then the end of an index-finger is carefully cleansed and pricked either with a sterilized needle or a new steel pen with one of the nibs broken off. When a drop of blood exudes it is brought into contact with a clean glass side, then placed on a level surface, and the blood covered with the cover-glass, vaselin side down. This produces a moist chamber suitable for blood examination for some hours. Another method is to spread a thin film of blood upon a cover-glass and keep it in a temperature of 110° to 120° C. for ten to fifteen minutes, when it is ready for staining.

An investigator ought to be very familiar with the appearance of normal blood. In this article only the corpuscular elements and hemoglobin are considered. The normal red or colored corpuscle of man is a biconcave disk, with an average diameter of $\frac{3}{3250}$ of an inch. This diameter is liable to great variations, even in the same person. In the light of our present knowledge the author claims that no expert, judging by the size of the corpuscles, can say that these corpuscles are even probably human. It is not always possible to restore corpuscles, dried in a stain, to their normal diameter. In a medico-legal case four experts reported that certain water contained blood-corpuscles, with an average diameter of $\frac{1}{3300}$. These were afterward proved to be the spores of a conferoid alga. The hemocytometer of Thoma and Zeiss show that there are 5,000,000 red corpuscles per centimetre in the male and about 500,000 less in the female. After blood is shed, the red corpuscles form rolls or rouleaux. The extent and rapidity with which this takes place depend on the amount of fibrin present. The red corpuscles of the adult mammalian, except the Camelidæ, have no nuclei. This is not so in early life or in some forms of anemia. The existence of a cell-wall is still a mooted question. The weight of authority believes the red corpuscles to be a transparent, plastic, and homogeneous stroma, charged with hemoglobin.

The colorless or white corpuscle is not peculiar to the blood, as it originates in the lymphoid tissues

and passes from there into the blood. They are nearly similar in structure, but different in function, from the pus-corpuscle. The two chief varieties of white corpuscles in human blood are the granular and the paler, less granular variety. Ehrlich describes five varieties. Prudden relies on the increase in the number of one variety or another in diagnosing morbid conditions accompanied by or dependent upon leucocytic hyperplasia. The size, shape, and structure of these cells vary greatly. They are composed of living matter, or differentiated protoplasm or "bioblast" or "bioplasmon." The living matter of the white corpuscle is arranged in a delicate reticulum. The appearance of these cells varies with the health. In healthy, strong, and robust people these corpuscles are comparatively small, the network hardly visible, and the active, living matter is bright and highly refractive. In corpuscles from one broken down in health or after wasting illness the cells contain vacuoles, the living matter is dull and lusterless and but little refractive. The average size of the white corpuscle is usually given at $\frac{1}{2000}$ of an inch. The relative number of white to red corpuscles in healthy blood is about 1 to 350, although this is liable to great variations. The white corpuscles usually contain a single nucleus, which may or may not be visible. The addition of acetic acid brings out and makes the nucleus prominent. The white corpuscles have a twofold action, acting as a reserve of active protoplasm to restore the normal and abnormal body waste, and as phagocytes to repel the invasion of foreign substances.

Blood-platelets are small, irregular, more or less refractive masses of protoplasm whose nature is still unsettled. Heitzmann believes they are offshoots from the colored corpuscle, and that their presence to any extent is evidence of a condition below par. In many specimens of fresh blood, without adding any reagent, one can see little masses of protoplasm separate themselves from the red corpuscles, and after parting with their color appear to be identical with blood-platelets. The identity of these bodies with microcytes has been suggested.

Hemoglobin is a crystallizable body forming the greater part of the colored corpuscles, but it must be dissolved and extracted from them before it will crystallize. The tests for its presence are the spectroscopic guaiacum test and hemin test. The spectroscope must be manipulated by an expert. The guaiacum test is as follows: If to a drop of blood solution, placed over a white surface, is added a drop of fresh tincture of gum guaiac and then a drop of ozonic ether added, a blue color will immediately appear. To do the hemin test the blood solution is evaporated in a watch-glass, the residue scraped together and pulverized, a trace of powdered salt added, and then a drop or two of glacial acetic acid. This is evaporated by heat, and the residue examined by the microscope. The hemin will appear as minute yellowish, reddish, or brown colored crystals, more or less transparent, and frequently arranged in stellate groups.

The author summarizes as follows:

1. An expert cannot state positively that a certain stain has been made by human blood.
2. It cannot be stated that a blood-stain was not made by the blood of any of the lower animals, except the sheep and goat.
3. In measuring blood corpuscles, at least three or four hundred should be used in the determination.
4. It is possible to state that a given stain is mammalian blood (excepting in the Camelidæ).

Contribution to the Knowledge of Pepsin.—Aug. Wroblewski (*Zeit. f. phys. Chem.*, XXI, No. 1)

Previous researches upon the pepsin-like ferments of the lower animals and fishes have shown decided differences in the action of pepsins of varied origin. The author again raises the question of the existence of the various pepsins, especially in reference to child's, pig's, and dog's pepsin. Comparative experiments have shown that the pepsins named differ in their behavior.

Glycerin extracts of washed gastric mucous membranes were employed. The substance used to test the digestive action was fibrin stained and macerated with carminic acid. This fibrin, uniformly distributed in vessels arranged side by side, was digested in the presence of phosphoric, oxalic, hydrochloric, nitric, tartaric, lactic, citric, malic, formic, paralactic, sulphuric, and acetic acids.

Pepsin of the child digested more rapidly in the presence of lactic acid, and slower in the presence of malic acid, than pig's pepsin. The comparatively more rapid digestion of the fibrin by pepsin of the child was particularly pronounced in the presence of acetic acid.

Pepsin of the dog, which generally proved to be very effective, digested very slowly in the presence of nitric acid; sarco-lactic acid greatly aided digestion with dog's pepsin.

From these experiments it is plain that, chemically viewed, the same ferment is not present in the three varieties of pepsin employed. In their digestion-favoring properties, the acids employed did not range according to their strength. Contrary to previous statements, A. W. found that in all cases oxalic acid acts most favorably in peptic digestion, and that hydrochloric came next.

On further research it was observed that alkaloids are not without effect upon the enzymes. Peptic and trypsin digestion are pronouncedly increased by hydrochloric acid and by free caffeine: on the other hand, strychnine hydrochlorate and narceine, as well as free morphine and veratrine, intensely retard pepsin digestion; the latter two affect trypsin digestion also.

These results, especially in regard to caffeine, demonstrate that the retarding action of decoctions of tea and coffee upon peptic digestion is not dependent upon caffeine, as Schultz-Schultzenstein found. The author shows that the evil effects of the decoctions named are dependent upon the tannin they contain.

Nucleo-Proteids.—W. D. Halliburton (*Jour. of Phys.*, XVIII, No. 4, pp. 306-318)

The principal points to which this paper calls attention are:

1. That the proteid formerly called cell-globulin beta, whether it is obtained from lymphoid structures like thymus, or from the stromata of the red corpuscles, is a nucleo-proteid.

2. Schmidt's fibrin-ferment comes also under the same category. Those interested in the coagulation question will find in Section 5 of this paper a review of Pekelharing's most recent contribution to the controversy, and an account of those experiments the author has performed, which bear out in a striking way Pekelharing's principal contentions.

3. Section 1 relates to a theoretical subject in relation to the mode of preparation of nucleo-proteids; and in Section 2 will be found analytical details showing the high percentage of phosphorus in the nucleo-proteid of red marrow.

NEUROLOGY AND PSYCHIATRY

In charge of **FREDERICK PETERSON, M.D.**

Chief-of-Clinic, Nervous Department, COLLEGE OF PHYSICIANS AND SURGEONS;
Attending Physician to NEW YORK HOSPITAL FOR NERVOUS DISEASES and to
ST. SAVIOUR'S SANITARIUM FOR INEBRIATES; Visiting Neurologist, RANDALL'S
ISLAND HOSPITALS

With the collaboration of

JOHN WINTERS BRANNAN, M.D.

Instructor in General Medicine, NEW YORK POST-GRADUATE MEDICAL SCHOOL
AND HOSPITAL; Attending Physician to BELLEVUE HOSPITAL

IRA VAN GIESON, M.D.

Assistant Instructor in Pathological Laboratory, COLLEGE OF PHYSICIANS AND
SURGEONS

LEWIS A. CONNER, M.D.

Assistant, Nervous Department, Vanderbilt Clinic, COLLEGE OF PHYSICIANS AND
SURGEONS

HOWELL T. PERSHING, M.D.

Professor of Nervous and Mental Diseases, UNIVERSITY OF DENVER

ALBERT WARREN FERRIS, M.D.

Assistant, Nervous Department, Vanderbilt Clinic, COLLEGE OF PHYSICIANS AND
SURGEONS

PEARCE BAILEY, M.D.

Assistant, Nervous Department, Vanderbilt Clinic, COLLEGE OF PHYSICIANS AND
SURGEONS

MORTON R. PECK, M.D.

Assistant, Nervous Department, Vanderbilt Clinic, COLLEGE OF PHYSICIANS AND
SURGEONS

THOMAS PECK PROUT, M.D.

Assistant Physician and Pathologist, STATE HOSPITAL FOR THE INSANE, Morris
Plains, N. J.

L. PIERCE CLARK, M.D.

Assistant Physician to the STATE HOSPITAL FOR THE INSANE, Middletown, Conn.

The Urine in Epilepsy.—Obreja (*Presse méd. Roumaine*, July 7, 1895; ref. in *Univ. Med. Jour.*, 1895, IX, p. 31)

O. finds that the evening preceding an attack of epilepsy the toxicity of the urine is greatly diminished; but immediately after the attack it increases markedly, to diminish progressively afterward. In the case of a criminal simulating epilepsy, he was able to detect the fraud by examination of the normal constituents of the urine. He also states that the approach of a period of excitement in melancholia or periodic insanity may be prognosticated by a diminution of the urinary toxicity.

Two Cases of Acromegaly.—Prof. Mossé (*Med. Week*, 1895, III, p. 52)

Mossé recently had under observation two patients affected with acromegaly. One succumbed after ephemeral improvement as the result of ingestion of thyroid glands, the other is still living. Post-mortem examination of the former revealed the existence of a large tumor in the pituitary gland, consisting of a spindle-celled sarcoma, which weighed 36 gme. On the other hand, the thyroid gland had undergone cystic degeneration, but the thymus was considerably hypertrophied, affecting the form of a pyramid.

Polyesthesia and Macroesthesia.—Stcherbak and Ivanoff (*Archives de Méd. experim. et d'Anat. path.*, 1895, No. 5, p. 657; ref. in *Med. News*, 1895, LXVII, p. 492)

The authors have reported a case of polyneuritis and hysteria presenting curious sensory manifestations in the distribution of the right median nerve. A body touched or held with the thumb and the adjoining two fingers, felt larger than it was actually (macroesthesia), and at the same time it seemed as if several bodies of the same kind were felt (polyesthesia). At different times, varying sizes and numbers were appreciated. The phenomena could not be elicited elsewhere than in the region named. Its advent had been preceded by severe pains, paresthesia, and trophic changes, particularly in the distribution of the right median nerve. The paresthesia continued in association with the

polyesthesia and macroesthesia, and disappeared with them. There was also impairment of both tactile and muscular sensibility in the affected area.

Amyotrophic Lateral Sclerosis, Following Old Poliomyelitis.—Hirsch (*Phil. Med. News*, 1895, LXVII, p. 500)

Dr. William Hirsch presented a case of amyotrophic lateral sclerosis, which had developed in a patient who formerly had anterior poliomyelitis. M. D., 45, gave a negative history as regards syphilis and heredity. About three years ago he noticed a stiffness and weakness in his left leg, which gradually became worse. After some time the right leg also became affected. He soon became unable to use his legs in working his sewing-machine (being a tailor), and his gait became so impaired that he was not able to stand or walk for any length of time. When he came under treatment, four weeks ago, he had complained of nothing else, and there were no sensory symptoms or disturbance of bladder or rectum. The examination showed an atrophy of some of the muscles of the trunk and the upper extremities. The right deltoid, the supraspinatus, and especially the thenar eminence on the right hand showed fairly marked atrophy. There was fibrillation in the muscles of the trunk and shoulder, increased by tapping them with the percussion-hammer. There was also diminished electric excitability, and in some muscles the reaction of degeneration was present. There was no atrophy of the muscles of the lower extremities, and the electric reaction was perfectly normal in these parts. The tendon-reflexes of the lower extremities were considerably increased; the knee-jerks were extremely exaggerated; and there was bilateral ankle-clonus. The last very frequently came on spontaneously, to the great annoyance of the patient. Sensation was perfectly normal in all parts of the body, and the sense of pain and temperature was unimpaired. There were no abnormal conditions in the function of the cranial nerves, with the exception that the tongue was slightly atrophied, and there was a marked masseter-reflex. Speech was in no way affected. There was no nystagmus, and the ophthalmoscopic examination showed perfectly normal conditions.

This was evidently a typical case of amyotrophic lateral sclerosis, and the man was brought here because of a possible relation between the present disease and the old affection.

An examination now showed very marked atrophy of the muscles of the left shoulder and upper arm, but the patient did not think it worthy of mention, as he said it had existed as long as he could remember. This appearance, together with the history, showed that he had had in childhood an attack of infantile paralysis. This brought up the interesting questions: Does there exist any relation between the present disease and the anterior poliomyelitis? and, if so, what is the nature of this relation? Dr. Hirsch said that Ballet and Dutil were the first to enter upon a discussion of this subject. They pointed out that an infantile spinal paralysis might give rise in later life to various affections of the spinal cord, but that they were all limited to the gray matter of the anterior horns. The irritation of the cord by the old lesion enfeebled, they said, the medulla, and made it a *locus minoris resistentiæ*, which, on any occasion, might become subject to further disease. Charcot expressed the view that there existed in some individuals a certain disposition, a kind of hereditary vulnerability of the ganglion-cells of the anterior horns, which at one period of life might

give rise to acute anterior poliomyelitis, and at another to progressive muscular atrophy, so that in fact both diseases would form different periods of one and the same pathologic process. In some cases of infantile spinal paralysis, Charcot said, the old scar produced by the inflammatory process in the gray matter of the anterior horns formed a latent, but permanent, inflammatory focus which, at any time might light up afresh and cause a new set of symptoms. A similar view, the speaker said, was held by Strümpell, who, on the theory of the infectious origin of anterior poliomyelitis, compared the scar in the anterior horns to an old tuberculous focus, which was capable of setting up a new inflammation at any time. So far as he knew, the case presented differed from all others recorded in literature in that the later disease was not limited to the anterior horns of the gray substance, but that other parts of the cord were also involved, *i.e.*, both lateral pyramidal tracts. He would not attempt to decide which of the theories applied to this case, but it could be proved with absolute certainty by the history of the clinical symptoms, that the pathologic process of the present disease started from the place where the old scar of the anterior poliomyelitis was located. This lesion lay apparently in the left horn of the cervical region of the cord. As the man first noticed weakness and stiffness of the left leg, the process must have approached first the left pyramidal tract, which lay next to the scar. Then, after the affection of the right horn, which showed itself in atrophy of the muscles of the right upper extremity, the pathological process spread over to the right pyramidal tract, causing a spastic condition of the right leg. Whatever the theory regarding the nature of the relation between the two diseases, there could be no doubt that there existed such a relation between infantile spinal paralysis and various spinal diseases of later life. Further observation and study of similar cases might throw more light upon this subject, as well as upon the etiology and nature of the diseases in question.

Epilepsia Diabetica (Acetonica).—Jacoby (*N. Y. Med. Jour.*, LXII, No. 19)

Convulsions occurring in diabetics are either partial or general; if the former, they are usually the precursors of a paresis or a paralysis, and as such are symptomatic of organic brain disease; if they are general and unaccompanied by any focal symptom, the relationship in which they stand to the diabetes is not so easily defined, for, in such cases, as it is difficult to decide whether the diabetes had existed prior to the onset of the epileptic spasms, so it will be difficult to say whether the convulsions are dependent upon the diabetes or whether the reverse—glycosuria secondary to convulsive seizures—is the case. Under these circumstances each such case must be studied by itself, always bearing in mind the fact that the transitory occurrence of sugar in the urine of ordinary epileptics after a convulsive attack is so rare as to be exceptional.

The author adduces from his own experience three cases in which convulsions were associated with diabetes.

Case I.—Young female, without hereditary taint or convulsions in childhood. Glycosuria was constant, and acetone was present in the urine during the attacks. Death occurred in less than two years after the beginning of the fits. Several days before death there was coma, without convulsions.

Case II.—Young man, with negative family and personal history until three years before, when he began to have epileptic fits, associated with emaciation and thirst. Examination of urine showed sugar and acetone in small quantities.

Class III.—Male, 34, perfectly healthy until one month before having convulsive attacks. Urine contained sugar.

“Such cases as I have here designated diabetic epilepsy should be classed under the narrower heading of ‘acetonemic epilepsy,’ as thus an idea of their pathogeny would be simultaneously conveyed. If we cursorily review the histories of these cases we are at once impressed by the analogy which they bear to the symptoms observed in other intoxications, such as alcoholism, saturnism, and uremia; if, furthermore, we consider the frequency with which in diabetes we meet with motor, sensory, and psychic disorders, it is hardly possible to avoid the conclusion that many, if not all, of these complications are due to the action of a toxic process; there is no reason to exempt the convulsive seizures from this deduction, and everything points to the conclusion that the active toxic agent in the production of diabetic convulsions is acetone in excess.”

“If acetonemia is so frequently met with in diabetes, and if such intoxication is capable of producing epileptic convulsions, why are these convulsions clinically of so rare occurrence? The reason, so far as I can see, is that the majority of cases of acetonemic intoxication met with in diabetic patients are cases of acute poisoning, and that the usual termination of this acute acetonemia is death in a few days from the first stage of excitation.”

Spinal Paracentesis.—(Editorial in *Lancet*, No. 3767, 1895, p. 1179)

“Prof. Quincke, of Kiel, was the first to advocate and practice puncture of the spinal sheath in cases of cerebro-spinal meningitis, whether tuberculous in origin or not. This simple expedient has, however, not been much practiced elsewhere, and in many cases has not been followed by permanent results. It is obvious that if it is to be of use in tuberculous meningitis the case must be one in which no other region or organ is the seat of military tubercle, and that may explain the fact of failure to insure recovery even after a marked improvement as regards the cerebral symptoms, such as disappearance of coma, has followed the lumbar puncture and drainage. In a paper read before the recent meeting of the Association of German Naturalists and Medical Men (*vide The Lancet*, Oct. 19, 1895) Prof. Quincke laid stress on its value in diagnosis. He affixes a manometer to the trocar and thus measures the degree of pressure within the canal. Failure to secure a flow of fluid is to be attributed to imperfect performance of the puncture—*e.g.*, the passage of the needle between the nerve roots outside the sheath, or the presence of thick pus which will not flow through a too fine needle. He is convinced of the therapeutic value of the plan, especially in rapidly developing forms of acute serous and sero-purulent meningitis. Prof. Quincke announced that one of his assistants was preparing an account of the experiences of his clinic on the method for publication in the *Archiv für klinische Medizin*. Prof. von Ziemssen said that there has been ample confirmation of the reports as to the diagnostic and therapeutic value of the lumbar puncture since its introduction by Prof. Quincke. He himself had injected a weak solution of iodine into the canal by this means. He did not use a trocar, but a simple

Dieulafoy's needle. Sometimes the patient shrinking at the moment of puncture, approximated the vertebræ, and thus hindered the entrance of the needle, and he thought that anesthetics should be given in the case of adults. No reaction followed, and in some cases examined after death no trace of the puncture could be found. In acute cerebro-spinal meningitis, which occurred sporadically in Munich, he had seen good results, as well as in serous spinal meningitis. It was surprising that in uremia, in spite of the high arterial pressure, only a few drops of fluid are to be found in the cerebro-spinal sac. Dr. Lenhartz had done lumbar puncture in 15 cases, of which 3 were cerebro-spinal meningitis. In several cases there was no result, although the needle undoubtedly entered the vertebral canal. In one case, ending fatally after two days, 80 c.c. of slightly sanguineous fluid escaped. The puncture was without any effect in this case on consciousness, pulse-rate, etc. Only once had he found tubercle bacilli in the fluid, and in another case the tuberculous nature was proved by inoculation experiments. In one instance, after the escape of 100 c.c., the patient grew worse. Prof. von Ziemssen said that in severe cases the patients will always die. Exceptions cannot disprove the rule. In many cases the favorable course was certainly to be ascribed to the puncture."

A Case of Melancholia Dependent upon Ethmoid Disease, and Cured by Intranasal Operation.—Bosworth (*N. Y. Med. Jour.*, LXII, No. 15)

The patient, who had passed through the hands of a large enough number of physicians to indicate a marked neurasthenic element in the case, remained for 10 years unrelieved from his mental symptoms until an operation on the nose opened up the ethmoid cells, which had been occluded by a growth of myxomatous tissue, depending on a deviation of the septum and a projection of the left middle turbinated bone.

His improvement after this little operation was prompt, and he resumed business very shortly and has now remained well for four years.

Two Successful Operations for Traumatic Insanity; with Remarks.—Cale (*N. Y. Med. Jour.*, LXVII, No. 15)

Case I.—Young man, without hereditary taint, always healthy until hit on head with a club. The wound suppurated for three months, finally healing. Mental symptoms, characteristic of epilepsy and moral insanity, developed four years later. At the operation, which was performed several years after the symptoms began, a small piece of bone was removed from the site of original injury. The bone was found depressed at this point, but the dura appeared normal. The improvement in the mental symptoms which followed the operation was rapid, complete, and permanent.

Case II.—Adult, male, always healthy until hit with brick on top of head. A maniacal condition immediately developed, lasting several days, which finally merged into a condition of headache, loss of vision, and insomnia. The acute mania would return on slight excitement. About six weeks after receipt of the injury an operation, similar to that in Case I, was performed. He made a good recovery and has since been working at his trade.

The length of time which has elapsed since the operations—four and three years respectively—warrants the statement that both patients have been entirely cured.

MATERIA MEDICA

In charge of WILLIAM FANKHAUSER, M.D.

Amygdophenin, an Antipyretic and Analgesic.—

R. Stüve (*Med. Week*, 1895, III, p. 563)

This substance is described as a derivative of para-amidophenol, one atom of hydrogen being replaced by the radicle of amygdalic acid, and another atom of the same gas by carbonate of ethyl or methyl. It is a crystalline substance of a grayish color, barely soluble in water.

The author has found that amygdophenin, administered in the form of powders or tablets, in doses of 1 gme. (15½ grn.) several times daily, possesses decided antipyretic, analgesic, and antirheumatic properties. The remedy was invariably well borne as long as the dose did not exceed 5 gme. (77 grn.) in the twenty-four hours; a daily dose of 6 gme. (92 grn.) sometimes produced slight vertigo and tinnitus aurium.

Boral and Cutol.—P. Koppel (*Sem. méd.*, 1895, XV, p. ccxxx)

Boral and cutol have been briefly described on page 1382 of Vol. VII, and on page 36 of Vol. VIII, of THE BULLETIN.

The results of recent experiments conducted by the author seem to further show that boral (aluminum borotartrate) and cutol (aluminum borotannate) are possessed of energetic astringent and bactericidal properties, while they exert no irritating action on the tissues.

He has employed boral in purulent otitis, both as a wash and for insufflation.

Cutol he has used more frequently than boral. In moist eczema, cutaneous wounds with copious secretion, fissures, chapping, and ulcers of divers origin, he first removes the scabs after having softened them with oil, and then applies the following ointment or paste:

Cutol.....	4 gme.
Olive Oil.....	10 gme.
Lanolin.....	26 gme.

or:

Cutol.....	10 gme.
Olive Oil.....	20 gme.

This treatment is said to effect a rapid drying-up of the secretions and disappearance of the tumefaction of the neighboring glands.

When the secretion has markedly diminished he replaces the ointment or paste by the following powder:

Cutol.	
Zinc Oxide,	
Powdered Talcum.....	aa 10 gme.

Cutol, rendered soluble by the addition of tartaric acid, has been used by the author, in the form of a 10-per-cent. solution in glycerin, in the treatment of follicular tonsillitis and in endometritis with abundant leucorrhea, the solution being applied by means of a camel's-hair brush. The tonsillitis is said to quickly disappear under the influence of this treatment. In catarrhal endometritis the solution is applied to the os uteri by means of a cotton swab, introduced through the speculum. This solution presents the advantages over glycerite of tannin of being a more potent astringent and bactericide, and of not soiling the clothes.

In cases of hemorrhoids the author claims to have promptly subdued the pain and arrested the flow of blood by the introduction into the anus of strips of cotton impregnated with one of the following ointments:

Cutol 5 gme.
Olive Oil..... 2 gme.
Lanolin 40 gme.

Add:

Solut. Lead Subacetate..... 1 gme.

or:

Cutol 3 gme.
Olive Oil..... 2 gme.
Lanolin 25 gme.

Add:

Carbolic Acid (liquef.)..... 6 drops

The use of powders and ointments containing cutol, applied morning and evening to the affected parts, has given favorable results in the treatment of local hyperidrosis. Wearing socks soaked in a 10-per-cent. solution of cutol, and then dried, has proved very efficacious in the treatment of plantar bromidrosis.

The author has also had success in treating frost-bites and chapping of the hands by applying the following ointment:

Cutol 3 gme.
Oil Sweet Almonds..... 15 gme.
Lanolin 15 gme.
Orange-flower Water..... 10 gme.

Hypodermatic Injections of Iodine and of Iron in Anemia.—Mennella (*Sem. méd.*, 1895, XV, p. ccxviii)

The author has successfully treated grave cases of anemia by the simultaneous use of subcutaneous injections of iodine and of iron. For this purpose he employs the following formulas:

- 1.—Iodine..... 0.2 gme.
Potassium Iodide To effect solution
Distilled Water..... 20 gme.
- 2.—Iron and Am.Citrate..... 1 gme.
Distilled Water..... 20 gme.

An injection is made into one thigh with the first solution, and another into the other thigh with the second solution. These injections may be repeated daily, or, if desired, even twice a day.

Dr. M. states that in this manner the therapeutic effects of the remedies are promptly manifested.

Secondary Effects of Lactophenin.—F. Kölbl (*Wien. med. Presse*, 1895, XXXVI, p. 1591)

Some time ago Strauss reported that he had observed three cases of catarrhal icterus to appear during the use of lactophenin.

Dr. K. now reports that two similar cases have come under his observation. Both cases were robust, young persons. One of these was suffering from muscular rheumatism, and had taken 1 gme. (15½ grn.) of lactophenin three times daily. The pain abated somewhat, but on the sixth day the patient lost his appetite; and catarrhal icterus developed in its typical form.

After suspending the remedy, the icterus persisted for fully two weeks longer. In the mean time the pain increased, but yielded slowly to sodium salicylate.

In the second case lactophenin was being tried in trigeminal neuralgia. After the patient had taken the remedy—1 gme. (15½ grn.) three times daily—for five days, icterus set in, which lasted eight days.

Dr. K. also calls attention to the fact that even

small doses of lactophenin sometimes unexpectedly cause symptoms of collapse. Women and children are said to be especially susceptible to the effects of this remedy.

Dr. K. states that he has employed lactophenin in 20 cases of typhoid fever, in which disease it had previously been reported to yield good results.

He observed that the remedy influenced favorably the general health of the patients. Small doses produced a certain euphoria, while appropriate doses caused a considerable fall in temperature. However the author did not observe that lactophenin possesses any specific action over typhoid fever, nor that the duration and course of the disease were at all influenced by it.

The author questions whether the remarkable remissions in temperature sometimes produced by lactophenin are not in reality due to a state of collapse. He advises that, in this disease particularly, lactophenin be administered cautiously, and only to adults.

Soziodole-Mercury as an Antisymphilitic.—Prof. Schwimmer

H. Trommsdorff, the manufacturer of the soziodole preparations, informs us that to obtain a perfect solution of the soziodole-mercury in Schwimmer's formula, as given on page 1268 of the last volume of THE BULLETIN, the soziodole salt should first be shaken with some of the water, the potassium iodide added, and finally the remainder of the water. The formula, to be complete, should read:

Soziodole-Mercury..... 0.8 gme.
Mixed with
Distilled water..... 5 gme.

Add:

Potassium iodide..... 1.6 gme.
and

Distilled water..... To make 10 gme.

It is also stated that subcutaneous injections of the above solution, in syphilis, may be rendered almost painless if about six minutes previously an injection of a 4 or 5 per cent. solution of cocaine hydrochlorate be given.

Prof. Schwimmer has used soziodole-mercury also internally, in large doses, with alleged good results in syphilis. He usually prescribes it in pills as follows:

Soziodole-Mercury..... 1 gme.
Opium 0.2 gme.
Extract gentian..... To make 30 pills
One morning and evening.

Thyroantitoxin.—Fränkel (*Medical Week*, 1895, III, p. 672)

The author has found that the albuminoid substances precipitated by acetic acid from a decoction of dried thyroid glands possess no special properties, and that the really active substance contained in the thyroid gland remains in the liquid obtained after separation of the albuminoid substances. From this liquid he has obtained a crystalline, very hygroscopic body, which gives the majority of the characteristic reactions of alkaloids. Its chemical formula is said to be $C_7H_{11}N_3O_6$, and it appears to be a derivative from the guanidine series. It is soluble in water and in alcohol, the aqueous solution being neutral or faintly alkaline in reaction and yielding a precipitate on the addition of lead acetate or acetic acid.

Intravenous injections of this substance, for which he proposes the name of "thyroantitoxin," determine in animals the quickening of the pulse, which is characteristic of injections of thyroid extract, and

checks the convulsions in thyroidectomized animals. In animals into which this antitoxin is injected immediately after extirpation of the thyroid body, no convulsions occur. The action of this substance, however, is confined to the production of convulsions, and does not extend to the other symptoms of cachexia strumipriva. The animals ultimately die, because the natural antitoxic function of the thyroid gland is not supplied by thyroantitoxin.

Solution of Ammonium Valerianate.—O. Boulouthian (*l'Union pharm.*, 1895, XXXVI, p. 491)

A preparation of ammonium valerianate much used in France, is that of Pierlot, which is said to be a solution of ammonium valerianate and extract of valerian in water. Valerianic acid and its salts are considered by many medical men to be practically devoid of antispasmodic properties; and the author believes that the therapeutical value of the above preparation is due to the extract of valerian it contains.

Dr. B. has endeavored to obtain a preparation of ammonium valerianate which should also represent all of the active principles of valerian root, and be less expensive than the above proprietary article. By proceeding in the following manner, he obtained a very satisfactory preparation:

Ammon. Valerianate (Cryst.)	...	4	gme.
Distilled Water	.....	60	gme.
Am. Carb. to neutralize	... (2 to 2.5	gme.)	
Tincture Valerian	.....	30	gme.
Fl. Ext. Valerian	.....	10	gme.

Filter!

This preparation, the author says, is perfectly limpid, and contains neutral ammonium valerianate and all the active principles of valerian root; the alcohol in it assures permanence for a long time, and helps to keep it neutral.

Diphtheria Treated with Ferric Chloride.—N. Rosenthal (*Therapeut. Monatsh.*, 1895, IX, p. 602)

The author reports that during the last few years he has employed ferric chloride in 271 cases of diphtheria, with a mortality of but 8.2 per cent., a result which, he claims, could not have been reached by any other mode of treatment.

He prescribes a 2-per-cent. solution of the remedy, using glycerin as a corrigent, and gives from a teaspoonful to a tablespoonful every hour, day and night, until the membranes are removed. After that the remedy may be administered less often, but care must be taken not to discontinue the treatment too soon, for it has been shown that the Löffler bacilli are to be found in the secretions of the pharynx a long time after the diphtheritic processes have disappeared.

When the diphtheritic patches are extensive, Dr. R. paints the affected spots with solution of ferric chloride, either in its pure form or diluted with an equal quantity of water or glycerin. The applications are made three times a day with a splinter of wood, at one end of which is wrapped some absorbent cotton. The swabs are burned after each application.

The cauterizations are especially beneficial in the case of nasal diphtheria, the author states. For this purpose he introduces a tampon of cotton, saturated with the solution, into the nostrils by means of a probe, removes the latter and exerts pressure upon the nose to express the remedy from the tampon,

while at the same time closing the exterior orifice of the nostrils. A few such applications usually suffice to remove all growths of suspicious appearance, it is maintained. Dr. R. does not insist upon the patients taking much food and alcoholic beverage, as recommended by many; for, in this disease, the stomach often rebels against food, as is evidenced by the vomiting frequently occasioned by the ingestion of nourishment. As a last resort he has employed feeding per rectum.

Dr. R. states that, as ordinarily treated, pharyngeal diphtheria usually runs into the more dangerous laryngeal diphtheria, whereas, with the ferric chloride treatment he has always been able to prevent diphtheria of the pharynx from extending into the larynx.

Erysipelas Treated with Ichthyol.—M. Ebersson (*Wien. med. Presse*, 1895, XXXVI, p. 1587)

In a lengthy article bearing on ichthyol and its action, the author confirms the reports extant regarding the antiseptic, reducing, and antiphlogistic properties of this remedy, and its efficacy in the treatment of various skin and women diseases. He then adds a report of a few cases that have come under his observation. He was called to see a boy suffering with facial erysipelas. For two days the author followed the usual treatment, but without success. The boy then presented the following symptoms: Temperature, 39.3° C. (102.7° F.), nose much swollen; face red and bloated, the redness extending on both sides as far as the neck, and up as far as the scalp; headache and nausea. On the third day the author began the following treatment: Application of a 30-per cent. solution of ichthyol in glycerin; application of ice; tampon of a 5-per-cent. ichthyol solution to the nose, and quinine internally. The next day the temperature was down to 37.5° C. (99.5° F.), and there was marked improvement every way. After three days of treatment the fever no longer existed, and the face had diminished one-half in size. Recovery thereupon quickly followed. After the first application of ichthyol the boy remarked that the tension of the skin and the pain were diminishing.

The second case reported is that of a 2½-months-old boy affected with erysipelas of the right side of the face; his temperature was 38.9° C. (102° F.). Dr. E. made an application with the ichthyol solution two days in succession; on the third day the author found that the child had recovered.

In a third instance the author treated a woman, over 70 years of age, afflicted with erysipelas of the leg, by means of ichthyol; she recovered after two days of treatment. A relapse occurred two months later, but a repetition of the treatment brought about a cure.

The author had twice occasion to test the remedy on himself.

After the manual delivery of the after-birth in a woman suffering with leucorrhea, a redness and swelling developed on the author's right wrist. He at first applied but a simple bandage of absorbent cotton. The next day he observed that the redness had increased in size; there was a sensation of heat in the part affected, and of chilliness of the body. He then applied a 50-per-cent. solution of ichthyol in glycerin, which soon gave relief. A second application was made the following day, and recovery soon ensued. A few weeks afterward the eruption broke out anew on that spot. The same treatment was pursued, and complete cure thereby effected.

While making an autopsy the author was stung in the arm by a large fly that had fed on the cadaver. He at first paid no attention to this event, but, in a few hours, the part became inflamed, somewhat painful and swollen. He then applied a 50-per-cent. solution of ichthyol. On the second day the swelling and the pain had diminished, and on the third all symptoms disappeared.

Dr. E. considers ichthyol a specific against erysipelas. He employs a 50-per-cent. solution in glycerin for adults, and a 25-per-cent. solution with children.

These solutions he freely applies, with a bristle brush, in concentric rings, beginning about an inch from the edge of the inflamed skin, and finally painting the center several times.

Fer Cremol, a Hematinic.—(Pharm. Ztschr. f. Russl.)

"Fer Cremol" is described as a new compound of iron, with the coloring matter of blood, obtained by the action of a dilute neutral iron-solution on a solution of blood. The acid set free in the process is neutralized with a dilute solution of an alkali carbonate. The whole process is carried on at a low temperature (about 0 deg. C.); and the precipitate obtained is washed, expressed, and dried.

Fer cremol is a brown, almost tasteless powder, which dissolves in feebly ammoniacal water with a nice red color, without leaving a residue; it contains 3 per cent. of iron. The dose is about 3 to 8 grn. (0.2 to 0.52 gme.) three times a day, after meals.

Fluorol.—Duclos (Pharm. Ztg., XL, p. 700)

"Fluorol" is the name recently applied to sodium fluoride. This salt is highly recommended by the author as a substitute for mercuric chloride, silver nitrate, potassium permanganate, and formaldehyd, as an antifermentative. It is said to rapidly check bacterial fermentation, but not to exert an influence upon so-called chemical fermentation.

An advantage claimed for fluorol, by Dr. La-grange, is that it does not coagulate albumin; thus, the bacteria are not protected from the action of the remedy by a coat of coagulated albumin.

It is said that injections of a 1:200 solution of fluorol are neither painful nor caustic, and that they produce no irritation whatever when applied to the mucous membranes, while they render the latter unfit for the propagation of micro-organisms.

Preservation of Chloroform.—L. Allain (Pharm. Jour., LV, p. 261)

The author claims to be able to preserve chloroform indefinitely by saturating it with sulphur. Chemically pure chloroform is taken, and the sulphur is prepared from ordinary sublimed sulphur by leaving it in contact with four times its weight of strong water of ammonia for twenty-four hours. It is then washed with distilled water until neutral to litmus, and placed in a stove regulated to a temperature of 40 deg. C. (104 deg. F.), where it remains for four days, after which it is further dried over sulphuric acid for fifteen days.

Purified chloroform exposed to direct sunlight gave a precipitate with silver-nitrate solution after about forty-eight hours, but underwent no change under similar conditions when previously saturated with sulphur, except that there was a deposit of insoluble sulphur. Specimens thus treated have been exposed to sunlight for four months without any alteration that could be detected by the usual reagents, and were found to cause perfectly normal anesthesia in men and the lower animals, without accident.

In diffused light the absence of one-thousandth part of its weight of sulphur preserved chloroform indefinitely in the presence of a great excess of oxygen.

No explanation of the phenomenon is given. It is intended to perform similar experiments with selenium and tellurium in place of sulphur.

Mercuric Chloride Injections in Syphilis.—

Sprecher and Allgeyer (Brit. Med. Jour., 1895, No. 1818, p. 71)

These clinicians give the results of treatment with injections of mercuric chloride in 126 cases of syphilis—53 men and 73 women; 115 had secondary syphilis, and 11 tertiary. The mercurial was dissolved in water containing five or six times as much sodium chloride as sublimite; and of this solution about 1 c.c. (16 min.) was injected. The injection was usually made in the nates, etc., and was followed by local massage. In men from 0.02 to 0.05 gme. (1-3 to 3-4 grn.) were injected, in women smaller doses. The injections were repeated once a week, in some cases up to twelve weeks.

No abscess ever followed, but local discomfort, redness, and stiffness were not uncommon, especially in the women. Forty-seven were mercurialized—that is, suffered headache, nausea, epistaxis, fever, stomatitis (20 cases), intestinal disturbances (14 cases), nephritis (1). Some had dyspnea. Severe mercurialism occurred in five women: four or five hours after injection, stomatitis, colic, diarrhea, fever, and albuminuria appeared, and lasted off and on for ten days.

The syphilitic manifestations disappeared after treatment in 108 cases, and generally after three or four injections.

Women were rarely able to stand more than 0.03 gme. ($\frac{1}{2}$ grain), and 0.05 gme. ($\frac{3}{4}$ grn.) usually caused severe symptoms of mercurialism.

On the whole, the authors are not enthusiastic about the new method of treatment.

Action of Ephedrine.—E. Grahe (Ther. Monatsh., 1895, IX, p. 557)

Ephedrine is the alkaloid obtained from *Ephedra vulgaris*, var. *Helvetica*. The hydrochlorate of this alkaloid has already been alluded to in a previous volume of the BULLETIN as being a mydriatic of considerable power.

It occurs in colorless, hygroscopic needles, melting at about 210° C. (410° F.) easily soluble in water, less so in alcohol, and insoluble in ether.

The author states that experiments with ephedrine hydrochlorate, conducted by Professor Dogiel upon animals, gave the following results: Instillations of a 2-per-cent. solution of this salt into the conjunctival sac of the dog produced, within 15 to 20 minutes, a pronounced, though not a maximal, mydriasis lasting six hours. The same effect was produced by instillations of this solution in a curarized cat.

As regards its action upon the system, the author states that small doses, administered per os, subcutaneously, or intravenously, occasion a temporary increase of blood-pressure, and retard the heart-contractions; the latter being at first strengthened, but subsequently weakened, owing to a paresis of the terminal filaments of the pneumogastric nerve, and perhaps also of the unstriated fibers of the heart itself. Larger doses cause a decrease of blood-pressure, in consequence of a diminution of vascular tone.

Paresis of the pneumogastric nerve is always produced, and, in intensity, is in direct proportion to

the degree of poisoning by the drug. Mydriasis, with slight loss of the power of accommodation and refraction, is also a constant phenomenon, induced principally by sympathetic irritation, but probably in part also by a slight paresis of the oculomotor nerve-endings in the sphincter iridis, and in part also by a paresis of the muscular fibers of the iris itself.

Ichthyol in Burns.—L. Leistikow (*Sem. méd.*, 1895, XV, p. 487)

An experience of six years has demonstrated to Dr. L. that, of the various remedies recommended in the treatment of burns, ichthyol gives by far the best results. This remedial agent rapidly calms the pain and subdues the congestion as well as the edema of the skin, not only in burns of the first degree, but also in those of the second degree, if, previous to making the applications, the blisters be punctured. In the latter case a new growth of epidermis immediately begins to form, while at the same time desquamation or detachment of the scabs that may exist takes place.

In burns of the first degree Dr. L. has recourse to applications of the following powder:

Zinc Oxide..... 5 parts
Magnesium Carbonate..... 10 parts
Ichthyol..... 1 to 2 parts

In burns of the second degree he applies the following paste:

Zinc Oxide..... 5 parts
Prepared Chalk..... 10 parts
Starch..... 10 parts
Linseed Oil..... 10 parts
Limewater..... 10 parts
Ichthyol..... 1 to 3 parts

The applications of the powder and of the paste are renewed once a day.

When inflammation is intense the two preparations may be employed simultaneously, the burn being first covered with a layer of powder, and the paste applied over this.

Arsenic Injections in Cancer.—F. Hüe (*Medical Week*, 1895, III, p. 552)

Having successfully treated chancroids by application of arsenical ointment, it occurred to Dr. H. to try injections of arsenic in inoperable cancerous tumors. For this purpose he first employed Boudin's 1:1000 solution of arsenous acid, and later the following mixture:

Arsenous Acid..... 1 part
Cocaine Hydrochlorate..... 5 parts
Boiled Distilled Water..... 500 parts

One to 2 c.c. (16 to 32 min.) of this liquid are injected into the neoplasm at intervals of from two days to a week.

In a case of epithelioma of the cheek, which recurred after operation and was accompanied by swelling of the glands of the region, Dr. H. states that he obtained complete recovery by injections of Boudin's solution daily for several months. In the course of this treatment, however, the patient had two attacks of erysipelas, which may have exerted a curative effect on the neoplasm.

A woman under the care of Dr. Paniel is also said to have been cured of a tumor of the breast by injections of arsenous acid.

These injections were resorted to in several other cases of recurrent cancer, with the result that the development of the tumor was manifestly retarded, and the general condition improved, in some patients; in others, however, they had no effect whatever.

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Fatal Fat Embolism after Forcible Stretching of Both Knee-joints.

Ohrens (*Centralblatt für Chir.*, No. 35, 1895)

In addition to the dangers of *brisement forcé*, which other observers have reported, the author reports a case of fat embolism which was observed at Bruns clinic. The case is of so much greater interest, because under limited force, which could not even be called *brisement forcé*, compression fracture of the femur and condyles of the tibia occurred. The contractions were previously removed by extension almost entirely. The autopsy revealed a high degree of osteoporosis. Two similar cases were reported by Wahusau and Colley. Such observations should lead to the limitation of *brisement forcé*, and to the greatest care in its performance.

Certain Measures for the Prevention of Recurrence of Malignant Tumors after Extirpation.

—(*Medical Week*, III, No. 43, p. 510)

A German surgeon, Dr. O. Hasse (Nordhausen), who has had occasion to operate on a large number of subjects suffering from cancer or sarcoma, has found that the reproduction of these neoplasms after extirpation may be prevented by the adoption of the following course:

"In the first place, care must be taken not to damage the tumor to be operated upon, by a rough examination. The injurious influence of rough handling on the growth and multiplication of malignant neoplasms is well known. Yet many surgeons do not in the least hesitate to press and knead such tumors in the course of their examination, and, as persons affected with malignant neoplasms, as a rule, consult several medical men before they can make up their minds to have recourse to surgical intervention, it is easy to understand the ill effects, in respect of the ultimate evolution of the tumors, resulting from the repeated mechanical irritation to which they are subjected. As a matter of fact, it is precisely among patients who have consulted a large number of practitioners that Dr. Hasse has most frequently met with post-operative recurrences; whereas, on the contrary, such patients who have been fortunate enough to undergo but few and cautious examinations are usually permanently cured.

"Another point of great importance in preventing the reproduction of the tumor is to prepare the patient for the operation by injecting, for several weeks, alcohol around the neoplasm. For this purpose Dr. Hasse employs a mixture of 30 parts of proof spirit and 70 parts of distilled water, which is injected twice a week all around the tumor, as well as around the infiltrated glands when these are present. The quantity of alcohol injected each time varies according to the size of the tumor, the dose being sometimes as high as 20 c.c. These

injections present no other inconvenience than that they are somewhat painful and occasionally cause slight intoxication. In order to avoid injecting the alcohol directly into a blood-vessel he proceeds as follows: Having inserted the needle deep into the tissues, the syringe is detached, leaving the cannula in place; if then no blood oozes through the latter, the syringe is screwed on and the injection proceeded with; but, if blood makes its appearance in the cannula, the needle is withdrawn and inserted in another place.

"Under the influence of these injections, the tumor usually decreases in size, becomes less tender, and surrounds itself with a protective zone of sclerotic tissue, which interferes with the migration of the infective germs, and consequently prevents post-operative reproduction. Sometimes the injections of alcohol even cause the neoplasm to disappear completely, rendering operative intervention unnecessary. In such cases the injections should be continued for some time after the apparent recovery, though at longer and longer intervals.

"As a rule, however, operation is indispensable, and, if so, there is a third measure to be applied, which, Dr. Hasse states, is fully as important as the two preceding ones. Instead of suturing the wound, as surgeons are usually in the habit of doing in order to obtain immediate union, it should be left open until it heals by granulation.

"Dr. Hasse employs the following mixture for dressing these wounds:

Morphine Hydrochlorate.	20 gme.
Pure Liquid Carbolic Acid.	30 gme.
Glycerin.	250 gme.
Water.	750 gme.

"Mix.—For external use.

"With this liquid the operative wound is carefully washed, after which small cotton and gauze compresses are steeped in it and placed over the wound, the whole being covered with water-proof or a layer of dry gauze.

"This dressing, which, according to Dr. Hasse, never determines symptoms of morphine intoxication, has the effect of immediately checking all pain in the region. The patients, therefore, feel well, have excellent appetite, sleep soundly, and experience no inconvenience from the operation which they have undergone. In addition to its analgesic effects, this dressing is also said to exert a destructive influence on the contagious agent of malignant tumors, not only on account of the carbolic acid, but also of the morphine which it contains, the latter, as is well known, being a parasiticide.

"Such are the measures which Dr. Hasse recommends as capable of preventing, if not invariably, at any rate in the majority of cases, the post-operative recurrence of cancer and sarcoma.

"Should, however, recurrence take place, recourse should be had at once to injection of alcohol around the circumference of the tumor."

Spontaneous Cure of Rachitic Deformities.— Veit (*Archiv f. klin. Chir.*, 1895, L, p. 1311)

Veit gives a series of photographs of rachitic children with various deformities of the lower extremities, taken at different periods of growth two or three years apart, showing clearly the tendency of the majority of cases of bone deformity, whether bow-legs, knock-knee, or anterior curvature, to disappear spontaneously. The correction of these deformities appears to be brought about by the growth of the bones, and the recovery is therefore dependent upon the child attaining a normal height.

As these changes take place largely between the third and sixth years, if they are not nearly complete by the latter period, operation will be necessary. It would be very desirable to find out some means of deciding, even at an early age, whether the correction would be made by nature, but so far Veit has only been able to determine this question by observing the rate of growth of the child. If this remains below the normal, it may be expected that the curvatures will be more or less permanent.

The Etiology of Carcinoma, Especially in Heredity and Endemic Relations.—Graf (*Archiv f. klin. Chir.*, 1895, L, p. 144)

Graf has made an attempt by sending circular-letters to the physicians of the neighborhood of Jena, Weimar, Meiningen, etc., to ascertain whether there were any parts of that country, in which cancer was unusually prevalent, and with a nearly negative result, the disease appearing to be pretty equally distributed. In a few villages there seemed to be a slight increase over the average, and he makes the most of this irregularity. In the matter of heredity and the existence of dwellings with a history of cancer among their inmates ("cancer-houses"), also, his researches had a negative result. In regard to heredity, he quotes various authors who found a history of heredity in from 6 per cent. up, and by combining their figures obtains the remarkable proportion of 17 per cent., which he thinks demonstrates the influence of heredity in the etiology of the disease. The paper displays great industry, but lacks judgment.

A New and Original Method of Obtaining Material for Skin-grafting.—Lusk, Warsaw, N. Y. (*Med. Record*, XLVIII, No. 23, p. 800)

In the case of a man who was severely burned by falling into hot brine, the author, not having tissue enough on the patient's body to supply Tiersch grafts, decided to use the numerous patches of exfoliated epithelium which remained from the vesication. At the time of their employment they were hard, dry, and crusty, and had been separated from the cutis for nearly five weeks. The method of procedure was first to scrape off this material, and then soften and sterilize it in warm boric-acid water, and then divide it into small grafts, and apply it to the granulating surfaces. The result was extremely satisfactory.

The Surgery of the Lungs.—Reclus (*Sem. m d.*, 1895, Oct., p. 446)

Reclus introduced the subject of the surgery of the lung at the French Congress. In traumatic hemorrhage he still hopes for success in operative intervention in spite of the failures so far reported. Resection of the lung for tuberculous lesions has been attempted ten times, with two successes, but it should be condemned because of the extent of the lesions usually found and the poor condition of the patient. Resection for tumors has been performed in four cases, with only one death; and in cases in which tumors have spread into the lung from the chest wall the operation may possibly be defended, but in other cases the diagnosis will be impossible unless the tumor attains great size, and then the operation is too dangerous.

Surgical treatment of tuberculous cavities and of dilated bronchi should be rarely attempted, the ordinary cases not being benefited thereby. Incision, however, is strongly indicated in hydatid cysts, in

gangrene, and in abscess of the lung. In gangrene, the mortality of medical treatment alone is 75 per cent., and it is reduced to about 40 per cent. by operation. In abscess, of 23 cases collected during the last ten years only 3 died, the majority of the cases being due to pneumonia, and these giving the best results. The method of attack should be by resection of several ribs, similarly to the Estlander operation, so as to give free access to the cavity. The pleura should be carefully inspected before incision. The lung should be incised with the thermo-cautery, and the opening thus made enlarged with the finger. Drainage must be efficient, but irrigation is not to be attempted, as it has frequently been the cause of trouble, and in one case excited a fatal bronchitis.

In the discussion Péan added to the record a successful case of resection of the lung for chondroma, and Bazy dwelt upon the advantage of exploring the pleura by an incision large enough to admit the finger without admitting air, in case no adhesions were present where the incision was made, as in this way the disease might be found at some other point, and the operation concluded after suturing the first pleural wound.

Tuffier showed his successful case of resection of the apex of the lung for tuberculosis, the man remaining well four years after the operation, as a protest against the complete rejection of this operation, although he admits that it should be strictly limited. Walther asserted that in operating upon any cavity in the lung of long duration, the obstacles to success were the same as in old pleurisies, and that these cases demanded very extensive resections of the chest wall, as suggested by Schede.

Operations for Recurrent Appendicitis, between the Attacks.—Roux (*Gazette des Hôpitaux*, 1895, p. 1224)

Roux has operated upon 95 cases of recurrent appendicitis, between the attacks, removing the appendix about five or six weeks after the last one. He thinks that in spontaneous cure about one-half of the cases recover by evacuation of the pus into the small intestine (hence its absence from the stools), and the rest by absorption of the pus which he has observed in every grade of thickening, caseation, and calcification. The pus becomes gradually sterile, and calculi may be found almost anywhere in the peritoneum. He found adhesions in every case, but no other invariable condition, although in over 60 per cent. he found cicatrized ulcerations. The intervals between the attacks were from one to forty years. He lost only one patient, who died from embolism after perfect operative recovery.

Murphy Button in Resection for Gangrenous Bowel in Strangulated Hernia.—Villard (*Sem. méd.*, Oct. 26, 1895, p. 457)

Villard reports four successful cases of resection of the bowel with a modified Murphy's button, the operation being performed for strangulated hernia, and dwells upon the great importance of some such method in these cases, for the patient is apt to be too much exhausted to bear a prolonged operation.

Invagination of Gangrenous Bowel in Strangulated Hernia.—Guinard (*Gaz. des Hôpitaux*, 1895, p. 1225)

Guinard has now tried his method of treating gangrenous bowel in strangulated hernia by simple

invagination of the sphacelated part in 12 cases. He claims originality for this treatment of cases in which the entire circumference of the bowel is mortified, although it had been employed by others in cases of partial gangrene. Partial invagination is to be employed where the lesion is limited to one side of the bowel, but in total gangrene the whole affected loop, which usually has thin walls and is easily reduced, should be invaginated, unless unusual conditions of thickness of the walls or great length of the loop (even 12 ctm. of bowel have been successfully reduced in this way) prevent this intussusception. The operation can be rapidly performed, differing from the operation upon non-gangrenous hernia only in requiring a somewhat larger opening of the ring to obtain room for the maneuvers, and in the short time necessary to make the artificial intussusception. The employment of this method will still further restrict the use of the artificial anus in these cases.

Fixation of a Wandering Spleen.—Plücker (*Centralblatt f. Chir.*, 1895, No. 40, p. 905)

The operation proposed consists in making a linear incision in the peritoneum, and drawing the spleen through this opening as a button is pushed through a buttonhole. The peritoneum is first stripped from the abdominal wall for a sufficient area to form a bed for the spleen. Then the incision is made, the spleen drawn through, and the incision in the peritoneum closed by suture. Finally, the abdominal wall is sutured. In the single case in which this operation has been carried out, the result was very satisfactory. The spleen was found in the pelvis, having been mistaken for a tumor in the left uterine appendages. The median incision, which had been made for its extirpation, was closed, and the procedure above mentioned carried on in the normal situation of the spleen.

Intestinal Obstruction from Gall-stones.—Lobstein (*Beiträge z. kl. Chir.*, XIII, p. 391)

Lobstein reports two cases of intestinal obstruction due to gall-stones, operated upon four and five days after the beginning of the symptoms, with one recovery, and then discusses the symptoms, treatment, and results. He collected 92 cases, in 61 of which no operation was performed, 50 per cent. of the patients recovering, while of 31 patients operated upon only 12 recovered—a result doubtless depending upon the fact that only the worst cases were subjected to operation. Nearly all the patients dying after operation succumbed to shock, owing to the lateness of the interference.

The size of the stone appears to have very little bearing upon the chances for recovery, as spontaneous elimination has been observed in some large stones, and small stones have been known to cause a fatal obstruction, being in a few cases so small that it is difficult to understand how they could totally occlude the bowel. The diagnosis is best made by the early appearance of fecal vomiting, and the absence of peritonitis or signs of strangulation. The majority of the patients (two-thirds) are women, and they range from forty to sixty years of age. Sometimes a history of previous biliary trouble will be obtained, and more rarely a foreign body will be felt. When the impacted stone has been found in the bowel by the laparotomy, it can be removed by a longitudinal incision on the free border of the gut, as this will be the easiest wound to suture and will cause least obstruction of the bowel when closed.

Cerebral Concussion.—Biedinger (*Deut. Zeit. f. Chir.*, XLI, No. 6)

The author reports a case which was admitted to Gussenbauer's clinic. The patient died the following day from pulmonary edema.

On microscopic examination of sections of the brain a very interesting condition was found. The blood-vessels are well filled; the smaller and smallest lie in a wide tube formed by the loose vessel sheath. This space is in places, specially in the occipital lobes, so wide that on longitudinal section the smaller vessels appear narrower than the band of lymph space lying on either side. These spaces are in some sections empty, in others leucocytes isolated or in groups are found; some of these are seen in the act of passing through the walls of the vessels. This infiltration is not only confined to the sheaths of blood-vessels, but it can be observed to spread into the brain tissue near the blood-vessels. In addition, laceration of the vessels with extravasation can be noted in places, but are not visible to the naked eye. Some of these spots appear as minute dark points. A dilatation of the lymph spaces could not be seen around the ganglion cells or nerve fibers. A large number of ganglion cells are yellowish in color; some of them appear as granular masses of a yellow color, but not all show this degree of degeneration. This change is not only observed in some of the cells of the cortex, but principally in those situated in the gray matter around the ventricles.

Discussion on the Operative Treatment of Fractures.—(Report of French Congress of Surgery, in *Semaine méd.*, October 26, 1895)

Heydenreich opened the discussion on the operative treatment of fractures by a complete *résumé* of all such procedures in fresh and ununited fractures, but the principal interest centered about the question of immediate operation and suture of the simple fractures, in regard to which he showed himself very conservative. Berger expressed himself in the same way, while admitting the insufficiency of the ordinary methods in some cases, such as oblique fractures of the leg, and fracture of the condyles of the humerus, but claiming that even here the results could not be improved by operation. The patella and olecranon were excluded from discussion. He was particular to emphasize his objection to suture of the clavicle in simple fracture, while Reynier held that these cases were proper subjects of attack, especially in women. Berger opposed the immediate application of plaster-of-paris apparatus in fracture of the leg, but Tillaux claimed that this was the best treatment possible. Demons and Boeckel and Villar agreed that in certain cases of fracture of the clavicle and of the inferior maxilla only the suture could insure satisfactory results.

NOSE AND THROAT

JAMES E. NEWCOMB, M.D.

Attending Laryngologist, DEMILT DISPENSARY and in the Out-patient (Throat) Department of the ROOSEVELT HOSPITAL; Instructor Diseases of Nose and Throat in NEW YORK POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL

Laryngeal Herpes.—Secrétan (*Annales de Mal. de l'Oreille*, etc., 1895, XXI, p. 113)

The author describes this malady as an acute affection occurring in healthy individuals or among sufferers from chronic laryngitis. It seems at times to be epidemic; at other times sporadic. The onset is usually sudden, with febrile reaction. The general symptoms are the same as those of idiopathic cutaneous herpes.

As to local manifestations, they begin with hoarseness, aphonia, lancinating pains, dyspnea, in fact the usual signs of acute catarrhal laryngitis. Edema of the larynx may or may not precede the appearance of the vesicles. The latter rarely exceed more than a dozen in number, are about the size of a millet-seed, and last but little time. Soon they burst and form upon the mucosa small erosions covered with white, adherent crusts (at times hemorrhagic in appearance), which fall off in five or six days and leave a simple depression. The laryngeal eruption may appear alone or may be accompanied, preceded, or followed by cutaneous or pharyngeal lesions of the same variety, which of course greatly facilitate diagnosis. The condition at its onset may easily be confounded with laryngeal diphtheria, but the clearness of the eruption, its lack of progressive confluence, etc., generally permit of correct diagnosis. Prognosis is invariably good.

As to treatment, disinfectant inhalations are most valuable. We may also apply ice locally. A light purgative and confinement to bed are to be included in the therapy.

Laryngeal vesicles may develop in the course of an acute malady, as pneumonia, but this is to be looked upon as a symptomatic rather than as an essential lesion.

Laryngeal Paralysis in Typhoid Fever.—Lublinki (*Annales de Mal. de l'Oreille*, 1895, XXI, p. 341)

The author declares that quite a large proportion of laryngeal affections in typhoid fever is due to the paralysis of the vocal cords. We may, it is true, find, on autopsy, ulcerations, edema, and perichondritis.

Lublinki has observed five cases of paralysis among adults, four being in men. The first evidence of laryngeal difficulty was observed in four of these cases after defervescence, and in one during the febrile stage.

The cause of the paralysis is not always the same. In one case of recurrent paralysis there was a pleuro-pneumonia. The affection was here explicable on the theory of the propagation of the pleural lesion to the recurrent. Sometimes the swelling of the cervical ganglions acts as the exciting cause, but in the majority of instances the lesion is probably a nervous one, a peripheral neuritis.

Of the clinical varieties one may have a paralysis of the dilators or of one or both recurrences. Ordinarily, during convalescence, the patient is suddenly taken with dyspnea, on inspiration. Expiration is easy and the voice is generally normal. This condition rapidly becomes more urgent, and tracheotomy may be necessary. The laryngoscope shows no signs of inflammation, but the cords approach each other and leave in inspiration only a very narrow median slit.

The author insists upon the importance of examining cases of this fever with the mirror, believing that laryngeal affections are more common than is generally supposed.

Bacteriology of Ozena.—Fage (*Rev. internat. de Rhinol.*, 1895, V, p. 193)

This article contains a *résumé* of the work of other writers, and describes experiments made by the author, who, from these premises, draws some very suggestive conclusions.

It is well known that Löwenberg, in 1884, was the first to claim the honor of having definitely demon-

strated the existence of a pathogenic microbe in this disease. This claim, though at first disputed, has been gradually gaining recognition, though it must be borne in mind at the outset that the local disease has not yet been reproduced by the usual methods of isolation of the microbe, culture, and reinoculation. As will be seen below, death has resulted in various species of animals, but not from that local intranasal malady which, from its most prominent objective feature, we call ozena.

Any one may repeat the work of Fage by removing nasal mucus on a sterilized platinum loop, and inoculating therewith the usual tube or plate culture-media, or diluting the mucus with sterilized water, and straining it with one of the aniline colors. The germ is seen in large numbers in every case of ozena, in the shape of coccus-like bacilli, arranged in pairs, surrounded by a capsule, and occasionally coupled in small chains. The microbe is decolorized by Gram. Examined in a suspended drop, it appears as a small rod, with rounded extremities. If under these conditions a dilute aniline dye be employed, there are visible at the extremities two colored points separated by a clear space.

It is agreed by all observers, and strongly insisted upon by Fage, that this coccus-like bacillus is polymorphous. In culture it loses its capsule, and becomes smaller and deformed. Along with it are found other micro-organisms (bacilli, staphylococci, and a few streptococci), but the striking fact is that the cocco-bacilli strongly predominate.

Fage has never met this germ in any other affection of the nasal passages, nor has it been found even in atrophic rhinitis or fetid rhinitis, due to polypoid growths. All the cultures give off a peculiar odor. The author is not inclined to lay much stress upon the fact of the odor in cultures resembling that of the disease clinically seen, for he believes that there is in this respect a great variation, due to the nature of the culture-medium employed, and to the age of the growth. Experimental conditions cannot exactly reproduce those naturally obtaining. "The human body is not a test-tube," etc. In certain of his experiments the odor developed was agreeable rather than otherwise, suggesting that of white wine. At other times the odor was that of putrefaction, or of some of the stronger cheeses.

It will be at once observed that the germ bears a strong resemblance to the pneumo-bacillus of Friedländer. Both have the same general shape, are encapsulated, stain alike with aniline dyes, are both decolorized by Gram, and, as a rule, look alike in cultures. In sterilized milk, however, the bacillus of ozena does not grow, and upon it produces no effect while the pneumo-bacillus thrives hardily and coagulates the milk. Löwenberg has shown that immunity against the former does not imply immunity against the latter.

Ozena, in spite of its presumable microbic nature, does not seem to be contagious. An explanation of its occurrence among several children of the same family is found in hereditary tendencies, and resulting similarity of constitutional condition.

Inoculations upon animals, both by the lymph-channels and by the blood-vessels, give very positive effects. Mice under whose skin was injected $\frac{1}{4}$ or $\frac{1}{2}$ c.c. of a fresh culture of ozena germs died in 24 hours. There was an edema or induration at the site of inoculation. The lungs and the organs in general were healthy, but the blood contained the cocco-bacilli in large numbers. Guinea-pigs were killed by intraperitoneal injections, and presented the same lesions as mice. Rabbits suffered malaise, but were not killed.

Fage has not found the microbe in the blood of patients examined with reference to this point, but its action upon inoculated animals shows us that we are in the presence of a pathogenic germ. He therefore believes that we should study the affection not only as a local lesion, but also as a local expression of a general systemic condition. The germ can propagate itself by continuity of tissue, as it has been found in the pharynx and in the conjunctival cul-de-sac.

GENITO-URINARY

GEORGE KNOWLES SWINBURNE, M.D.

Surgeon to the GOOD SAMARITAN DISPENSARY; Instructor in Surgery NEW YORK POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL, etc.

Vesical Calculus Removed by the Rectum.—T.

T. Davis (*Am. Med. Jour.*, 1895, XXIII, No. 9, p. 404)

The patient upon whom this operation was performed was a German, aged 40. For nine years he had had symptoms of stone in the bladder. Several physicians had searched his bladder for stone and had found none. Finally a digital rectal examination revealed the presence of a stone nearly the size of an English walnut, which lay between the prostate gland and the rectum. Under cocaine the bulging anterior wall of the rectum was incised and the stone removed. Recovery was prompt, and, except for a slight prostatitis, it was complete.

Resection of the Penile Portion of the Urethra.—

Alfred Pousson (*Ann. de Mal. de Org. gén.-urin.*, 1895, p. 601)

The author details the few cases of resection of this portion of the urethra which have been published, gives two cases of his own, and details his own method of procedure. After sterilization of the field of operation he applies an elastic band at the root of the penis, and thinks this is best performed by two turns of a No. 16 or 18 Nélaton catheter, catching these turns by a pair of artery forceps, the handles of which lie toward the scrotum to keep them out of the way. A longitudinal incision is made in the median raphé down to the nodule to be excised; this is then separated, by means of the bistoury, at the sides; then, if the entire caliber of the urethra is involved, the urethra is cut through back of the nodule by means of a pair of curved scissors of medium size, the nodule is seized by forceps and lifted out of its bed, while the points of attachment are freed by light cuts with the scissors, and then cut anteriorly, leaving a gap in the urethra, which, from its elasticity, separates still further. If the fascia of the corpora cavernosa should be invaded by the nodule, it should be closed by catgut sutures. The elastic band is removed to look for important bleeding points, and oozing stopped by hot applications and pressure, and the elastic again applied. In uniting the cut ends of the urethra P. advises continuous suture with fine catgut, the mucous membrane of the urethra not being pierced by the needle.

Should the excision be only partial, P. believes it to be advantageous to suture the urethra transversely, and not longitudinally, so as not to encroach on its lumen, as, should there be any resulting curvature of the penis on erection after a few months, this will become rectified. The other strictures are sutured, and a catheter of 16 to 18 F. left in the bladder four to five days, and then removed, unless other indications are present.

Of the eight cases detailed, three were done in pre-aseptic days. Of these one died of erysipelas and two healed by first intention. Five have been done since 1889.

Leaving out the case of death, the immediate effects of the operation were good. In four observation has not been made sufficiently long after to judge of ultimate results, but all show some contraction. In three, observed after two or more years, one had recontracted considerably, so that a No. 9 F. passed with difficulty. One case, that of Guyon, showed no recontraction, and no induration.

The indications for the operation are in those cases in which recontraction constantly recurs after repeated attempts of internal urethrotomy, or attempts at dilatation followed by pain and reaction; also, impassable strictures of this portion of the urethra. These will be found to be of the periurethral cicatricial variety, following traumatism principally.

DERMATOLOGY

HENRY W. STELLWAGON, M.D.

The Diagnosis of Syphiloma—Von Esmarch, of Kiel (*Centralblatt f. Chir.*, No. 27, 1895)

It is a well-known fact that tumors frequently occur which are due to constitutional (acquired or hereditary) syphilis, and which may be cured by appropriate internal medication. As it is often difficult to make an absolute diagnosis between these growths and malignant growths (sarcoma and cancer), they are subjected to unnecessary operations or unnecessary medication. Von Esmarch reports more than forty cases where tumors which were at first supposed to be malignant have finally proven to be syphilitic.

He considers all cases suspicious where the patients present other symptoms of syphilis, or where the history proves that they, their parents, brothers, or sisters, have suffered from the disease; second, all sarcomatous tumors developing in the voluntary muscles, in the muscles of the abdomen, back, lower extremities, and tongue; third, all sarcomata which appear after complete extirpation, at first slowly, and then at shorter intervals (recurring fibroid tumor of Paget); fourth, all tumors which disappear after the use of iodide of potash, mercury, arsenic, or those that decrease after the exhibition of these drugs; fifth, sarcomata which disappear after attacks of erysipelas or injections of the toxins of erysipelas (Coley).

All of these suspicious cases are important points in the diagnosis, and the more of them that coincide in a given case the more likely is it that the tumor is of syphilitic origin. The surgeon at the same time must be more careful before he decides on an operation, the examination of the entire body must be more thorough, and the examination of the history has to be carefully considered. This is very difficult in many cases. Frequently conditions which determine the matter may be found, such as a rash, ulcers, scars, and the condition of the teeth and eyes. No diagnostic conclusions can be drawn from the external appearance of the tumors, since the mode and duration of their growth are so variable.

From the appearance after extirpation, or from an excised particle, the diagnosis may be made with the unaided eye, for on transverse section the

picture which Virchow has described so well may be seen, and this macroscopic examination frequently gives valuable aid, particularly from the negative point of view. In some cases, however, syphilomata cannot be distinguished either macroscopically or microscopically from a small-celled or spindle-celled sarcoma. This may be true of the granuloma without any limited proliferation, which originates from broken-down gummata. The most difficult diagnosis is in the syphilitic lymphomata, which frequently occur as a symptom of hereditary late syphilis, and may very frequently be taken for the other varieties, particularly the tubercular and pseudo-leucemic malignant lymphoma and lympho-sarcoma. In other glands, especially in the breast, testicle, and the salivary glands, syphilomata may occur, but are usually recognized at the extirpation. Since, after extirpation of these tumors, recurrence usually takes place rapidly, with a fatal result, it is of great importance to decide by microscopic examination whether the tumor is syphilitic or not. That syphilis is due to a bacillus or similar organism (protozoa) is probable from the mode of infection and the course of the disease, but unfortunately the micro-organism has not yet been isolated in spite of all the attempts that have been made to settle this point. Should it be determined absolutely, the greatest difficulty in the diagnosis would be solved.

In a discussion following this paper, Koenig said that it undoubtedly happens to every one to extirpate a syphiloma, but not as frequently as Esmarch suggested. All cases in which the suspicion of syphilis is present are not cured by the antisiphilitic treatment, and they may die from the ulceration, notwithstanding all that is done for them.

Rose said that his experience in late hereditary syphilis corresponded largely with Esmarch's. In Switzerland he had seen tumors develop in the skin which were traceable to syphilis, and he recalled especially a tumor of the chin the size of an apple, which disappeared within four weeks under treatment with iodide of potash.

Krause also called attention to the fact that syphilis on the coast presented an entirely different picture from that in the interior of Germany. He had met with an old woman in whom a tumor on the upper jaw was diagnosed as sarcoma, who was cured by iodide of potash. In his practice he had seen three cases of spontaneous fracture of the thigh in young men, and a large periosteal gumma of the thigh, which were healed by extirpation and iodide of potash, while the periosteal gumma was removed by operation, because it was not influenced by treatment. Severe cases of syphilis are limited to the coast, and particularly to people who are infected in the tropics.

Von Esmarch said that severe forms of syphilis came to him frequently, not only from the tropics, but from Sweden, but that treatment with iodide of potash is not immediately successful, improvement appearing sometimes only after six weeks, and therefore specific treatment should not be discontinued too soon. A change in the form of treatment in such cases may be necessary.

Linder said that some of the wonderful cures attributed to the homeopathic practitioners may be explained in this way. He knew of the case of a woman with an exceedingly large tumor of the upper jaw, which was taken for sarcoma by two surgeons, and yet disappeared under homeopathic treatment. After spontaneous fractures, which he had seen twice in the upper arm, then at the neck of the thigh, and of the other upper arm, a cure was

* The editor acknowledges his indebtedness to Dr. Eva Knight for the preparation of this report

effected by syphilitic treatment. Syphilis which had not been diagnosed had helped toward the success of homeopathy. Esmarch said that syphilitic tumors might disappear spontaneously.

A Case of Unusual Localization and Extension of Comedones.—S. Kofmann (*Archiv f. Derm. u. Syph.*, 1895, XXXII, p. 177).

The author had seen a case whose back, from the nape of the neck to the sacral region, showed an uninterrupted row of acne scars. Only occasional small areas of skin were free, and there was evidence that the process was not yet complete.

A still more recent case the author narrates more fully. The patient complained of severe pain in the left leg, due to the application of a strong solution of carbolic acid. The patient, 19 years old, of medium height, was a fairly nourished, healthy youth. The sensitive skin had everywhere a very light growth of hair. On the upper part of the left thigh the following condition was noted: Extending from the posterior spinous process of the ilium downward and anteriorly in a diagonal direction to about the middle of the thigh, was a black streak 3 or 4 ctm. wide. From the middle of the thigh to the external condyle the line was somewhat irregular and broken. The discoloration was seen only in occasional patches on the leg. The whole area resembled a sieve, which was especially marked at the upper part of the thigh, the comedones being much raised and the normal skin much depressed. According to the mother of the patient, this condition has been present since birth, which is of interest, in view of the fact that Kuestner has shown this affection to be by no means rare in the newly born. The treatment is the squeezing out of the comedones.

Surgeons' Eczema.—Stillmark (*Centralblatt f. Chir.*, No. 35, 1895)

Stillmark reports five cases of surgeon's eczema, caused by the use of various antiseptics, some lasting years, others recurring very frequently. In some of the cases the eczema affected the body in addition to the hands, the latter being the most frequent seat of the affection. It is remarkable that all of the surgeons, before their first attack, tolerated all antiseptics; in all of the cases the idiosyncrasy appeared suddenly without any warning. For the appearance of recurrence very slight irritants were sufficient, such as iodoform dust, which is present on opening an iodoform-gauze dressing. Some were benefited by hot water, others by icebags, powders, thiol solution, or painting with egg albumen.

ORTHOPEDIC

T. HALSTED MYERS, M.D.

Attending Orthopedic Surgeon to ST. LUKE'S HOSPITAL; Assistant Surgeon to NEW YORK ORTHOPEDIC HOSPITAL

Congenital Syphilitic Manifestations in Bones and Joints.—Morgan (*Lancet*, No. 3753, p. 304)

Morgan said there was an endosteal inflammation not infrequently going on to suppuration, found especially in the distal ends of the bones in these infants. There is thickening of the bone here, and sometimes displacement of the entire epiphysis, and frequently a pseudo-paralysis, the limb being flaccid and never voluntarily moved. There is seldom much

pain unless suppuration has occurred; in this case the joint is apt to become involved. In older children, after the second dentition, frequently at the same time as keratitis, we have a different manifestation of the disease. Nodes are developed on long bones, and necrosis often follows, and there is a tendency to general hypertrophy and induration. Necrosis of the palate and bones of the nose occurs. There is very little nocturnal pain in these cases, but they are not nearly so amenable to iodide of potassium as are similar conditions in adults. These cases of osteitis not infrequently lead to alterations in the shape of the bones, curvatures, lengthening, or in some cases shortening from interference with epiphyseal growth.

Morgan denied that rickets was merely a stage of congenital syphilis, though syphilis frequently was a predisposing cause of rickets. He thought generally the "bosses" on the cranium and cranio-tabes were due to syphilis, but whether directly or by impairing nutrition was still a question. In many cases the syphilitic manifestations in joints, he thought, were due to extension of the epiphyseal inflammation, and in others there was chronic effusion into several joints, usually symmetrically, concomitant with interstitial keratitis. These cases are very chronic and there is no pain.

Etiology of Articular Rheumatism.—Chvostek (*Wien. klin. Wochenschrift*, June, 27, 1895; *Brit. Med. Jour.*, No. 1807, p. 433)

C. considers that the cocci come from the urethra in some of the cases where they are reported as found in the urine. Even in health he found them in ten out of eighteen cases examined, where the catheter was not used.

Chvostek examined the blood, urine and synovial fluid in twelve cases of acute rheumatism simultaneously, and in a large number of cases the synovial fluid, together with some other organ—for example, the tonsil. In every case the results as regards the synovial fluid were negative unless the joint affection was due to sepsis or gonorrhea. That many observers have obtained positive results in cases of articular rheumatism is to be explained by (1) cases of sepsis with metastatic joint changes not having been excluded, (2) many of these examinations being made post-mortem. An immigration of bacteria into the joints takes place, in animals at least, very soon after death.

Experiments showed also that: (1) the walls of blood-vessels not evidently altered anatomically are permeable to bacteria; (2) the anatomical structure of the synovia and its vessels is an obstacle, and bacteria enter the joints considerably later than the kidneys through the renal vessels; (3) the exit of bacteria depends on their kind—thus staphylococcus passes most readily, then streptococcus, and bacterium coli hardly at all. Virulent cultures are formed in the joints sooner than attenuated ones. Cutting the nerves of vessels also hastens the exit of bacteria.

Chvostek held that the cases he had examined were not caused by direct bacterial invasion of the joint, but either by toxins produced directly by micro-organisms or by chemico-toxic substances. Probably any micro-organism may excite the disease. They enter the body anywhere, but generally by the intestines or tonsils.

Krause proved (*Wien. med. Wochenschr.*, June 27, 1895) that in various infective diseases bacteria may be present in the urine which have no etiological relation to the disease, but yet disappear with it

OBSTETRICS; GYNECOLOGY; PEDIATRICS

In charge of T. S. SOUTHWORTH, M.D.

Pathologist to NURSERY and CHILD'S HOSPITAL; Lecturer on Diseases of Children at the NEW YORK POLYCLINIC

With the collaboration of

ALBERT H. ELY, M.D.

Attending Gynecologist, CHARITY HOSPITAL; Assistant Gynecologist, ROOSEVELT HOSPITAL, O. P. D.; Lecturer on Gynecology, NEW YORK POLYCLINIC

GEORGE G. WARD, Jr., M.D.

Instructor in Obstetrics at the LONG ISLAND COLLEGE HOSPITAL; Instructor in Gynecology, NEW YORK POST-GRADUATE HOSPITAL

WALTER A. DUNCKEL, M.D.

Attending Physician Diseases of Children, NEW YORK DISPENSARY

GEORGE R. WHITE, M.D.

Gynecologist to the NEW YORK DISPENSARY; Assistant Attending Physician, SOCIETY OF LYING-IN HOSPITAL, NEW YORK; Instructor in Operative Surgery, POST-GRADUATE HOSPITAL

EDWARD N. LIELL, M.D.

Lecturer on Gynecology, NEW YORK POLYCLINIC

WILLIAM B. NOYES, M.D.

Assistant in Departments of Pediatrics and Nervous Diseases, VANDERBILT CLINIC

Manual Interference to Correct Certain Undesirable Presentations.—J. F. Baldwin, Columbus (*Amer. Jour. of Obstet.*, 1895, No. 5, p. 624)

The author thinks that intra-uterine manipulations are not resorted to as frequently and as boldly as they should be. The article deals especially with the treatment of mento-posterior and occipito-posterior positions. A number of authorities are quoted as objecting to manipulative interference of the head in these cases as advocated in 1873 by Parry. It is the writer's opinion that these objections are largely traditional in character and originated before the time of anesthesia and antiseptics.

Intra-uterine manipulations should always be made during the cessation of uterine contractions from complete chloroform anesthesia, and at this period the entire uterine mass should be lifted above the pelvic brim, and the necessary manipulations made to convert the head into a more favorable presentation. Parry states that it is surprising to what extent the uterus with its contents can be pushed upward during complete relaxation from anesthesia. He urged the employment of the hand for two conditions: First, to transform an occipito-posterior into an occipito-anterior position, and, second, to change mento-posterior into occipito-anterior cases. Obstetricians agree that an occipito-posterior case should be made to rotate anteriorly by pressure on the side of the head or by introduction of the whole hand, and rotating the whole fetus on its axis, but the author thinks that few obstetricians are aware of the fact that in very many cases it is easy to convert a mento-posterior position into an occipito-anterior one, as suggested by Parry. The writer has had two cases in which he was able to adopt this procedure with ease. Mento-posterior positions, when recognized early, can usually be converted into mento-anterior ones without difficulty.

Mento-anterior positions are now known to be practically without danger, although forceps may be necessary, the principal objection being the temporary disfigurement of the child's face; therefore the author suggests converting occipito-posterior positions into the far more desirable mento-anterior ones.

On August 22, 1888, he first attempted this manipulation and accomplished it easily. The woman (multipara) had been in labor three hours, and the head was in the pelvis. Dr. Baldwin endeavored to secure rotation without result; then, under chloro-

form, he pushed up the head, and, assisted by a hand applied externally to the shoulder, secured extension with not much difficulty, and allowed the head to descend with the chin to the front during the next pain, and delivered her successfully with forceps. He has since resorted to this manipulation half a dozen times, with one failure. This failure was a primipara, 34 years old, weighing over 250 pounds, and she had been in hard labor for 32 hours when he was called to assist in the delivery. The child weighed 13 pounds at birth, and the author could not extend the head, but was able to secure rotation of the entire fetus, which was subsequently delivered with forceps. The author attributes this failure to the large padding of fat which interfered internally as well as externally. He also reports a case in which he was able with ease to convert an occipito-posterior into a mento-anterior position after failure of rotation, and, as the pains were in abeyance, and to see if the maneuver were feasible under the circumstances, he again elevated the fetus, flexed the head, and then, passing the hand alongside of the head to the shoulder, without difficulty rotated the entire mass so as to make the position an occipito-anterior one, thus showing the extent of relaxation of the parts under complete anesthesia.

It is essential that the patient should lie on her back with legs well flexed, and hips to the edge of the bed. If there is not room in the pelvis the entire fetal mass should be lifted and the fingers then worked alongside of the head until the occiput or chin can be caught and brought down and held in position for the next pain.

The writer summarizes as follows: First, in mento-posterior positions, the chin fails to rotate to the front; before resorting to mutilation of the fetus or cesarian section, an earnest, well-directed effort should be made to convert the case into an occipito-anterior position; second, in occipito-posterior positions in which rotation fails to be accomplished, a similar effort should be made to convert the occipito-posterior into a mento-anterior position. The required manipulations under profound chloroform anesthesia will rarely fail.

Diet During Pregnancy.—Eichholz (*Rev. de Thér.*, 1895, No. 18, p. 578)

The author thinks many of the ills which accompany parturition are brought about by improper diet during pregnancy. An excess of water and of albuminous food should be avoided—water, on account of its tendency to produce hydro-amnion; and albumin because it favors excessive growth of the child.

The following is the diet prescribed, and which has been tried in a number of cases:

Meat once a day; green vegetables and potatoes; avoid eggs, pease, and beans, as they are too rich in albumin. Wine and beer may be taken in moderation, but no more fluid should be taken than necessary. The advantages claimed for this regimen are:

1. The patients are active until the eve of their accouchement; they do not suffer from a sensation of fullness, excessive formation of fat, thirst, or constipation.
2. Rapid and easy delivery, even in those cases in which the previous labors have been prolonged and difficult.
3. There is never an excess of liquor amnii.
4. All of the women thus dieted have nursed their babies. The quantity and quality of the milk were

always good. The children were small, but healthy and well formed. They averaged about six pounds in weight; the circumference of their heads about 33.5 ctm.

Feminine Ruses and Catheterization of the Uterus.

—Verchere, Paris (*Rev. de Thér.*, 1895, No. 18, p. 555)

The author relates several cases in which women have elaborated most skillful stories of menorrhagia or uterine obstruction in order to get a doctor to pass a uterine sound and terminate their pregnancy. In one case a celebrated professor was led to dilate and curette a uterus for fungoid endometritis, and was much disgusted at removing a two-months' fetus.

The uterine sound, the author thinks, is used entirely too often. It should never be passed until the patient has been under observation several weeks, and then only during the first week following a menstrual period.

Movable Kidney in Women.—Charles P. Noble, of Philadelphia (*Gaillard's Med. Jour.*, 1895, No. 2, p. 59)

The author deals with the subject especially in its relation to women, and limits his remarks to his own investigations on the subject. He makes the statement that a movable and displaced kidney in women is very common, occurring in one-fourth of his gynecological patients. The right kidney is the most frequently displaced. He has not seen the left kidney displaced independently of the right one. In one-tenth of the cases both are displaced.

The author's experience shows him that falls, pregnancy, and tight-lacing, the causes usually quoted, are only etiological in a limited number of cases. These patients are always thin, with but little adipose tissue, and it occurs in all classes of patients that are emaciated. The author believes that the lack of adipose tissue is the primary etiological factor of movable kidney, as the kidney has no proper ligaments, its support being a celluloadipose layer of tissue, in which it is imbedded. Thus the lack of adipose tissue would weaken this support, and, aided by tight-lacing, multiple pregnancies, etc., the kidney becomes displaced.

The reflex symptoms are usually abdominal, though sometimes general. These patients are apt to be extremely nervous. Indigestion of varying degree, with flatulence, palpitation, and cardalgia, is frequent. Neuralgic areas over the abdomen and chest are common. The local signs vary greatly. The most frequent is a sense of dragging, increased on standing or walking. The kidney may be recognized as a tumor by some patients. Severe renal pain is rare. In one-half of the cases the movable kidney causes no trouble. Variations in the amount of urine may occur, due to twisting of the ureter.

The bearing-down feeling attributed to pelvic disease is often due to misplaced kidney. The diagnosis can only be definitely established by physical exploration. The normal position of the lower border of the kidney is about on a level with the lower border of the ribs, in the author's experience. The examination should be as follows: Loosen all clothing, make patient stand beside a table, with the examiner seated at her right. She should then bend forward from the hips and support herself with her hands on the table, and breathe regularly and relax thoroughly during expiration. The examiner's left hand is placed over the lumbar region, and his right in apposition; the region

between the hands can then be palpated. The points to be looked for are the shape and size of the organ, and that it can be displaced upward beneath the ribs, and will return to its previous position by gravity. Differentiate from tumors, etc. In half of the cases symptomatic treatment, tending to nourish the patient and improve the general condition, has sufficed, but in the remainder such treatment was of no avail. The author has tried the rest cure without much success; it is applicable only to cases with moderate displacement. He has done nephrorrhaphy in six cases, with very satisfactory results, but as yet all his cases have been too recent to yet prove the permanency of the operation. It is simple and a safe procedure in the hands of an experienced surgeon.

Pseudo-lobar Broncho-Pneumonia; Treatment.

—Dr. G. Marfan (*Gazette méd. de Paris*, 1895, No. 41, p. 1895)

The author, who writes voluminously and well concerning the diseases of children, states that there are four indications to be filled in the treatment of this condition, which is simply one of broncho-pneumonic infiltration of approximately an entire lobe.

The first indication is to prevent infection from the upper air-passages from aggravating the condition of the pulmonary area of involvement, namely, by antiseptics applied to the nasal passages and throat. For the nose he prescribes:

Vaselin	30.	gme.
Boric Acid	5.	gme.
Camphor	0.050	gme.

To be applied to the inside of the nose twice daily.

For the mouth and throat:

Carbolic Acid	1.	gme.
Thymol Sodé	0.50	gme.
Glycerin		
Alcohol	ad 25.0	gme.
Distilled Water	450.0	gme.

With this the throat and mouth are to be cleansed, especially about the teeth

Second.—Combat asphyxia: (a) by emetics (these are not now favored in the United States); (b) by diffusible stimulants, which the author himself prefers:

Ammonium Acetate	1.50	gme.
Sodium Benzoate	0.50	gme.
Brandy	8 to 10.00	gme.
Syrup Tolu		
Water	āā 45.00	gme.

A dessertspoonful every one or two hours, according to age.

A good revulsive is the mustard-bath for five minutes. Blisters are rarely to be used, and never until late in the disease.

Camphor gives excellent results where intense hyperemia of the lung exists—

Benzoic Acid	0.15	gme.
Powd. Camphor .....	.03	gme.

Given at each dose in milk.

Camphorated oil can be used hypodermatically.

Third.—Cardiac asthenia is to be met by the tincture of digitalis by the mouth, or caffeine subcutaneously.

Fourth.—When with signs of general toxemia, there are no other physical signs than those in the lung, one may give cool baths every three hours to reduce the temperature and quiet the nervous system.

Fibroid of the Uterus with Papilloma of the Ovary.—L. S. Pilcher (*Annals of Surg.*, XII, No. 2, Aug., 1895, p. 268)

Dr. Pilcher presented to the New York Surgical Society two specimens removed from the same patient. One was a fibroid of the uterus; the other a papilloma of the ovary about the size of a child's head. The papilloma had developed from the hilum of the right ovary, had broken through its capsule, and become somewhat diffused throughout the abdominal cavity. There was only a small quantity of ascitic fluid present.

Dr. Pilcher added that this was the third specimen of papillomatous cyst of the ovary which had come under his observation within the past few years. In the first two cases the patients had recovered, and there has been no recurrence of the disease.

Inversion of the Uterus of Five Days' Standing; Successful Reduction.—A. A. Davis and C. W. Packard, of New York (*Med. Rec.*, 1895, No. 17, p. 588)

Braun states that in his clinic not one case of complete inversion occurred in 150,000 labors. At the Rotunda Hospital, Dublin, one case occurred in 190,000, thus showing the extreme rarity of this complication. The authors report a case with successful reduction.

Primipara, 28 years old, labor commenced early in the morning and she was delivered of a living child with forceps under chloroform at 7 o'clock that evening, with considerable laceration of the perineum and vagina. A severe hemorrhage followed the removal of the placenta. On recovering from the chloroform she had intense pelvic pain and a feeling of impending dissolution. Symptoms of collapse followed. The attending physician had gone, so a neighboring physician was called and helped her through the night.

For the next five days the temperature gradually increased to 103.4°, the pulse to 130, and the respirations to 30. She was then seen by Dr. Davis, who proposed to clear the uterus of clots and wash out with a carbolic solution, but upon introducing his finger into the vagina he found it filled with a large mass, quite hard, and with a feel similar to a placenta. He could not find the cervix. She had a distended bladder, 48 oz. being drawn off. Four hours afterward the patient was seen by Dr. Packard in consultation. Fifty ounces more of urine were withdrawn, and then it was found that no uterus could be detected in the abdominal cavity. Examination showed a hard tumor behind the pubis and low down in the pelvic and just within the vulva, which was sensitive to the touch. High up a thin flap of the cervix could be felt on the right side. In Sims's position with a Sims speculum the tumor was anemic and moist, with lochial discharge. A diagnosis of inverted uterus was made.

The patient was etherized, and in the dorsal position the index and middle fingers were firmly and steadily pressed against the presenting fundus with counter-pressure through the abdominal wall. At the end of fifteen minutes the two fingers were buried to the distal joint; the whole hand was then passed into the vagina and four fingers pressed against the mass, while, with the aid of the thumb, massage of the uterine walls to render them more pliable was done. In half an hour the fundus was carried into the constricted cervix, which was thus dilated. At the end of 45 minutes three-fourths of

the uterus were returned, and at the end of an hour the reduction was completed. Her condition at the end of the operation was as good as at the beginning. The following points are of interest in this case: The remarkable relaxation of the uterus, without which reduction would have been impossible. The absence of all hemorrhage from the relaxed uterus during and following the reduction. The order in which the uterine tissues slowly found their way back to their normal position, the tissues nearest the cervix rolling back first.

The condition of the patient ten days following the operation was very serious; she then became much better for a few days, but finally died of pelvic peritonitis and metritis.

Treatment of Different Forms of Dysmenorrhea.

—(Editorial in *Semaine mée.*, Oct., 1895, No. 49, p. 426)

The causes of dysmenorrhea, following the classification of Dr. Düvelius, of Berlin, are: Malpositions of the uterus, endometritis, diseases of the tubes and ovaries.

If the dysmenorrhea be due to a deviation of the uterus, the treatment depends upon the kind of displacement. In cases of retroflexion it is usually sufficient to replace the organ by a pessary. This allows the menstrual blood to escape freely into the vagina and relieve both congestion and pain. Cases of antelexion are much more rebellious to treatment, but are best relieved by dilating the cervical canal at frequent intervals, and having frequent recourse to a maneuver which consists in pressing back the fundus of the uterus by one hand over the pubic bone, while a finger of the other hand, inserted in the vagina, presses the uterus forward to the abdominal wall.

Among the affections of the mucous membrane which produce dysmenorrhea, the so-called interstitial endometritis is the most frequent. This condition is diagnosed clinically by a slight secretion from the uterus and sensitiveness of the endometrium when a sound is passed. The dysmenorrhea in this trouble is often of a very severe type, and has to be allayed by narcotics. The treatment consists in applications of iodine or astringents to the endometrium, and curettage in the rebellious cases.

The dysmenorrhea of tubal origin is characterized by its severity, and often leads to the employment of morphine to relieve the pain. The treatment consists in causing the absorption of pelvic exudate by hot douches and suppositories of ichthyol 0.25 gme., cacao butter 2.00 gme., to be introduced every night before retiring. Massage of the tubes and ovaries may be employed if one is sure that there is no collection of purulent sanguineous or serous fluid in the tubes. These complications are best treated by laparotomy and excision of the tubes.

Dysmenorrhea due to the ovaries is of very frequent occurrence, and may be due to a true oöphoritis or to simple neuralgia of the ovary. The palliative treatment consists in the administration of narcotics and ice over the region of the ovaries, or, instead of ice, hot stupes may be employed.

The curative treatment consists in the employment of hip-baths, douches, tampons, electricity, and, above all, gentle massage. Cases in which the ovaries are bound down by adhesions are relieved quickly and completely; other conditions give less brilliant results.

Ovarian neuralgia at the menstrual period is exceedingly difficult to cure; even castration often

fails to give relief. Pregnancy seems to have a good influence, and it is advisable to favor the marriage of women with this trouble, provided it is not associated with severe hysterical troubles.

Besides these varieties of dysmenorrhea due to lesions of the uterus or adnexa, we have to consider a type of dysmenorrhea due to general conditions, which is frequently seen in young women suffering from anemia or chlorosis. These cases often do well on antipyrine or phenacetin, and especially viburnum. The fluid extract of viburnum should be given in dram doses, beginning five or six days before the period. Exercise in the open air is also a valuable means of treating this kind of dysmenorrhea. Some cases are relieved by a horseback ride shortly before the period. Others experience the same relief after dancing vigorously.

The Electrical Treatment of Endometritis.—Wm. L. Jackson, of Boston (*Jour. Electrotherap.*, 1895, No. 4, p. 240)

The author enters a plea for greater conservatism in the treatment of this disease, as he believes many cases can be treated equally well with electricity as with the curette, and with more safety and less suffering.

Apostoli was the first to put forward the advantage of electricity, in 1886. He advocates currents from 75 ma. to 250 ma. for from three to ten minutes, the positive pole in the uterus when hemorrhage is present; otherwise the negative. Various modifications of Apostoli's method are advocated, and the author advocates Gautier's method.

The vagina is irrigated with 1:3000 bichloride, creolin 10 per cent., or lysol 1½ per cent. A copper or zinc sound as large as can be used is passed to the fundus; the sound may be insulated at the cervix and vagina by a coating of shellac dissolved in alcohol. The author prefers to use a speculum. The electrode should be sterilized by heat or boiling. The current is gradually let on by means of a current-controller, and a maximum of 25 ma. applied at the first treatment. Later this may be increased to 60 ma. The duration is for 15 minutes, the current then gradually reduced to zero, reversed, and 15 to 20 ma. passed for seven minutes. This latter is to free the electrode from the adhesions formed. A douche follows this treatment, and the patient reclines for half an hour. Only two treatments should be made in each intermenstrual period. If the menstruation is excessive the positive pole is used; if scanty, the negative. (A platinum electrode is best for the negative current.) The discharging electrode is of clay or metal, best covered with amidon, and is placed on the abdomen.

The patient rarely complains of pain during the treatment. In most cases a bloody discharge follows; forewarn the patient of this. The writer admits that cases of septic or gonorrheal endometritis are best treated by surgical measures, but the majority of cases of simple endometritis can be cured as safely, surely, and satisfactorily by this means as any other, with the advantages of no anesthesia or confinement in bed, no shock and no pain. Cases resisting treatment with the curette yield to electricity. It is also valuable as diagnostic of the presence of tubular or ovarian disease, as Apostoli has shown that invariably where an inflammatory action follows the use of the current there must be a collection of pus in the pelvic cavity. This is not a form of treatment which a novice in electricity should attempt to apply. The

galvano-chemical cauterization destroys the diseased membrane similar to chemical caustics, but without the liability of cicatrization of the latter, and is followed by a healthy development of the endometrium, and causes no bar to pregnancy. The method also exerts a local stimulating effect upon the trophic nerves, causing renewed activity of the cells and improving the circulation, thus relieving congestion and stasis.

Case of Pseudo-puerperal Infection Due to Constipation.—L. Dubrisay (*La France mée.*, April, 1895, No. 16, p. 212)

The author calls attention to the fact that constipation after confinement may cause a rise of temperature and other symptoms resembling puerperal infection. In a case which he reports in full the patient had no movement for four days. Her temperature reached 39.6; pulse, 120. The tongue was coated, breath fetid, and the abdomen swollen and tender. The symptoms all disappeared after active purgation.

An Improved Diphtheritic Serum.—Dr. Behring (ref. in *Rev. Mens. de Mal. de l'Enfance*, 1895, XIII, p. 527)

At the September meeting of the Congress of German Naturalists and Physicians, held at Lübeck, Dr. Behring stated that, in view of the statistics brought together by the *Deutsche medicinische Wochenschrift*, he could freely proclaim the harmlessness of the antidiphtheritic serum. He also announced an improvement in the methods of production which permits of the reduction of the curative dose to 1 c.c. and of the preventive dose to 0.5 c.c. This marks a very decided advance in serotherapy, for by this great reduction in the quantity of animal serum introduced into the system, the possibility of injurious by-effects from that source should be practically eliminated, and as soon as it has had a general trial we should be able to judge whether the unpleasant but not dangerous joint and skin affections are to be ascribed to the antitoxin or the serum which contains it.

The Rising of the Cream.—The explanation urged by the defence in a recent milk prosecution, that the sample was taken late in the day, when the cream having risen to the surface had been unavoidably removed with the milk dealt out to the previous customers as it was ladled out from the vessel on the counter, is not an unreasonable one. It is easy to say that in dipping the vendor ought to have stirred and mixed it better, but negligence of this kind does not amount to wilful fraud. The difficulty arises also when milk is drawn from a tap at the bottom of the churns or cans in which it is carried through the streets for serving customers at their own houses, and which are securely locked to prevent tampering with it. As time passes the cream rises, until the last drawn off consists of little else, the drawings immediately preceding being proportionately impoverished. To check this separation and to equalize so far as possible the distribution of the cream Mr. Bolle, a dairyman, of Berlin, has adopted a very simple contrivance in the form of an inverted cone of finely perforated tin plate, the open base of which rests on the bottom of the churn. While the fat globules in the milk outside rise to the surface, those within the cone adhere to the inner surface of the upper portion, from which they are detached as

the level of the milk sinks below its apex, and the cream that had floated in the outer space is sucked back through the perforations, assisting in the loosening of that within, and with it mixing with the general mass of milk without the necessity for agitating the contents of the cans. Numerous examinations of milk drawn off at intervals from the first filling to the time when the last is exhausted, and in hot and cold weather alike, have shown by the almost inappreciable differences in their composition that the apparatus, simple as it is, works most satisfactorily.—Brit. Med. Jour.

Random Selections

Milk Diet in Cardiac Liver.—R. Lépine (*Med. Week*, 1895, III p. 572)

The author recently had under his care three patients with tricuspid regurgitation, in all of whom the liver was of enormous size, the lower edge reaching, or even extending beyond, a horizontal line passing through the umbilicus. In two, digitalin considerably reduced the dilatation of the right half of the heart as well as the tricuspid regurgitation; but the lower edge of the liver remained in the neighborhood of the umbilicus.

Having found that the cause of this phenomenon was the ingestion, though in moderate quantities, of meat, he put his patients on an exclusively milk diet, with the result that the liver, without any change in the condition of the heart, shrank considerably.

This is but natural, Dr. L. maintains, seeing that digestion, especially of meat, determines marked congestion of the liver. In cases of cardiac liver, therefore, if the patient is allowed to eat what he pleases, the passive congestion due to excessive blood-pressure in the hepatic veins is re-enforced by congestion of digestive origin. To combat the latter, the author claims, nothing is better than an exclusively milk diet. If, however, the patient is unable to bear this diet, the same result may be reached by injection of broth, etc., but, in any event, meat should be rigidly excluded from the diet. The same is true of wine, which, even when mixed with a large quantity of water, is liable to cause congestion of the liver.

Treatment of Certain Kinds of Cough.—B. Robinson (*Am. Jour. of the Med. Sc.*, 1895, CX, p. 503)

There are kinds of cough which are met with quite frequently whose diagnosis is made with difficulty, and in which the treatment, despite repeated changes fails, to accomplish much in the way of abatement and cure.

The author states that a frequent cause of these obscure cases is an engorged lingual tonsil, caused either by certain menstrual derangements, continued constipation, or an underlying rheumatic or gouty state. In these cases he recommends the use of salicylic acid or the salicylates internally, and, locally, applications of compound tincture of iodine or the use of the galvano-cautery.

Another peculiar form of cough he mentions occurs in young children, and is most troublesome at night. This cough is usually due either to a dropping of thick mucus or muco-pus from the nasopharynx upon or into the larynx; or to an irri-

tation of the posterior turbinated bodies brought on by local congestion. The first condition is usually due to more or less development of the pharyngeal tonsil or lymphoid tissue at the vault of the pharynx. It can be cured by a moderate scraping with the finger-nail of the right index-finger introduced behind and above the soft palate. To be thorough, two or more scrapings should be made. If there is much bleeding, the post-nasal space may be swabbed with a little of Mackenzie's tanno-gallic powder (3 parts of tannin and 1 part of gallic acid). For a few days subsequent to the scraping it is wise to spray the nasal and post-nasal passages with a mild antiseptic solution.

Sometimes there is no adenoid tissue in the post-nasal space to account for the obstinate cough, and there is practically no hypersecretion of mucus or muco-pus from this region. The nasal passage is more or less occluded; the occlusion being usually aggravated at night. In such cases, the author has found the cough to be much relieved for some time by a spray of albolene, camphor, and carbolic acid; or by application of carbolic acid and glycerin (from 1 part to 8, to equal parts of each ingredient) to the nasal mucous membrane. If the cough is not altogether relieved by these means, he finds it useful to paint over the posterior end of the turbinated bodies (as much as can be reached), and also the vault of the pharynx, with carbolic acid and glycerin (1 part of carbolic acid to 6 or 8 parts of glycerin). In this way, Dr. R. maintains, we are able to relieve the congested condition, and, by diminishing the sensitiveness of the peripheral nerve-filaments here distributed, to cure the reflex attacks of cough which have proved so distressing.

In the same way as a hypersensitive area may be discovered in some portion of the nasal passages or nasopharyngeal space there may occasionally be found sensitive areas in the pharynx, in the tonsillar region, in the soft palate, etc., which will occasion cough when the irritable point is touched. In such cases, sometimes one agent, sometimes another, gives most relief; no uniform treatment can be adopted. All local remedies at times remain futile, and the cough persists until an entire change of air and scene is obtained.

Of the internal remedies from which the author derived most benefit, he mentions codeine and terpin hydrate. Codeine in doses of 1-10 grn. more or less frequently repeated, and terpin hydrate in tablet form of 1 or 2 grn. each, every two or three hours, have been of great service in his hands.

Paroxysmal cough may be occasioned by irritation in the auditory canal. Repeated applications of alcohol or a mild solution of mercuric chloride (1 : 1000) or of silver nitrate (1 : 100) will usually cure this condition after a time, it is maintained.

Some individuals are apparently in good health, and yet are constantly hawking and expectorating. Usually these patients are lithemic to an intense degree, and after a while the lithemic state becomes complicated by the presence of an elongated palate and a thickened, congested pharynx and larynx. Such a condition is helped more by sodium salicylate or the salts of lithia than by local applications or anodyne cough-mixtures.

Malaria sometimes produces a congestive condition of the respiratory passages, which occasions a rebellious cough. In such cases Dr. R. has found cinchona, in the form of tincture or fluid extract, preferable to quinine and arsenic.

The obstinate cough, due to a dilated heart or to one affected at the orifices with organic changes, is quite frequent, the author asserts. By stimu-

lating a somewhat weak cardiac action, he has been able to stop a bad cough of this kind in a few days.

Instead of the rheumatic dyscrasia affecting the joints, it may lodge itself in serous membranes like the pleura or peritoneum. It produces only slight pain at times, and for this reason no recognition of the cause of cough is made out. In such a case, the author cured the cough by applying one or two small fly-blisters locally.

In many instances of cough of various kinds, Dr. R. obtained great temporary relief from dry vapor inhalations of a mixture composed of equal parts of camphor, menthol, and eucalyptus oil. The addition of spirit of chloroform he often found very useful.

In all cases of cough arising from severe bronchial inflammation, from broncho-pneumonia, or from grippe, inhalations of beechwood creosote mixed with steam are highly recommended.

They are said to not only relieve the cough very much, but to be valuable also in the cure of these diseases.

The Variations in the Temperature of the Mouth in Health, Produced by Local Applications of Heat and Cold.—W. S. Lazarus-Barlow (*The Lancet*, 1895, II, p. 1034)

By reason of accessibility and a belief that the true body temperature is thereby more nearly obtained, it has become very usual to take the temperature of patients by placing the clinical thermometer in the mouth, while at the same time the patient is directed to keep the bulb under his tongue, and his lips firmly closed around the stem of the instrument. This site has largely taken the place of the axilla, particularly in the case of patients who are fully dressed. The author made experiments which show how unreliable readings made in this way really are. An adult male, perfectly healthy, but confined to bed by a small surgical ailment, was made the chief subject of the experiments. His temperature was normal, and the experiments were for the most part made about 2 p.m.

THE EFFECT OF HEAT LOCALLY APPLIED BY MEANS OF HOT DRINKS

The subject was given one pint of beef-tea, varying between 150° F. and 110° F. during the time of its consumption. Immediately afterward the thermometer registered 100° F., but fell within the next five minutes to 99° F. It then fell more gradually, so that even 40 minutes after the fluid had left the mouth, the temperature was still 0.4° above normal.

A COMPARISON BETWEEN THE EFFECTS OF HEAT AND COLD

The temperature in the mouth was first taken with great care, and was found to be 98 deg. F. A piece of ice was then kept in the mouth for one minute. The temperature at once fell to 93° F., but had returned completely to normal at the end of 10 minutes. After the temperature had remained normal for a quarter of an hour, the subject of the experiment was given half an ounce of broth at 140° F., which he held in the mouth for one minute. The temperature rose to 99° F., and fell gradually, being half a degree higher at the end of 10 minutes than it was before the broth was taken, and being still above the initial temperature at the end of 20 minutes.

It must be borne in mind that the difference from

the body temperature in these last two experiments was not the same, being 66° (98°—32°) in the case of the ice, and but 42° (140°.—98°) in the case of the broth. In accordance with the greater temperature-difference in the case of the ice, the initial fall of the mouth temperature is greater, but, contrary to all expectation, the recovery is much more rapid than in the case of the hot fluid. This was the invariable result.

But the author has found that a reduction in the mouth temperature is caused by breathing cold air through the mouth, not only when the inspirations are especially deep, but also when, for example, the subject read aloud in an ordinary manner for one minute. This was sufficient to reduce the temperature 0.3° while the effect is not completely recovered from until the mouth has been kept closed during the five minutes which elapse after the reading aloud has ceased. The mere act, therefore, of describing his symptoms to the physician lowers appreciably a patient's mouth temperature.

TEMPERATURE AS THE INITIAL TEMPERATURE OF THE MOUTH

The temperature of the mouth was taken with care, and then the subject was allowed to hold water of the same temperature in the mouth for two minutes. The mouth temperature rose 0.6° and fell very gradually, being 0.2° above the initial temperature three-quarters of an hour later.

The author explains the result in the following manner: The presence of the water is regarded as a stimulus, which inhibits the vaso-constrictors of the vessels of the mouth, and therefore allows the parts to be flushed with a more rapid stream of blood, which has come with less delay and in larger quantities from the deeper parts, and which is therefore of a higher temperature than that of the surface. That this is true is suggested by the facts (a) that the mouth temperature cannot be indefinitely raised by raising the temperature of the ingested fluids; (b), that the temperature change is brought about by a very short application of the stimulus, and (c) that it lasts a length of time quite out of proportion to the duration of the stimulus.

From the clinician's point of view the writer regards the following as the most important conclusions of his investigations:

1. Heat and cold, when applied to the mouth, even for a very short time, caused marked variations in the temperature of the mouth.

2. The effect of heat, though less pronounced, is considerably more prolonged than that of cold. In practice, if a great degree of accuracy be required, the author suggests that the temperature never be taken in the mouth unless other parts are inaccessible; but, if only the mouth be available, then attention should be paid to the following points: (a) One hour, at least, must have elapsed since the last food or drink of any kind, and even in the smallest quantity, has been taken by the patient; and (b), for ten minutes previous to inserting the clinical thermometer the mouth must have been kept completely closed. Under such circumstances as these, and under them alone, is a temperature taken in the mouth a reliable index to the body temperature.

Rhus toxicodendron has been recommended as an efficacious remedy in sciatica and other forms of neuralgia occurring in individuals with a rheumatic tendency.

SOCIETY MEETINGS

NEW YORK ACADEMY OF MEDICINE GENERAL MEETING

December 5, 1895

JOSEPH D. BRYANT, M.D., President

A Study of the Infectiousness of the Dust in the Adirondack Cottage-sanitarium

Dr. Irwin H. Hance: There exists among the laity and some physicians a feeling that they are constantly in danger of becoming infected with the germs of tuberculosis. Oftentimes where popular opinion considers the danger greatest, it is in reality the least. It is within the writer's experience that parents have refused to have their children return home lest others in the family might become infected. Such heartless actions are largely due to ignorance of the real danger of infection and a lack of knowledge of the means by which such danger can be avoided. Two facts have been positively confirmed by previous experiments: (1) That buildings for consumptives, private dwellings, and public conveyances do become infected by tubercular germs; and (2) that a tuberculous patient is absolutely free from infecting others by contact; it is the product of their secretions that is dangerous. The truth of this second statement is but dimly comprehended, even by many physicians. A number of observers have found by animal experiments that the expired air is non-infectious—it does not contain the tubercular germs.

For all practical purposes the infectious element is contained in the dried and pulverized sputum. After five years of personal observation in the sanitarium I can say that the rules about the care and disinfection of the sputum are rarely transgressed. Dust from the most unfavorable parts has been taken at Dr. Trudeau's request, and examined by me. The first group of four buildings consisted of the main building, the infirmary, the red cottage (the oldest one), and the most recently built cottage. One square yard of dust from each building was collected and inoculated into ten guinea-pigs. In the second group were thirteen cottages, and from each of these half a square yard of dust was inoculated into three guinea-pigs. All sources of contamination other than the dust were carefully excluded, and the animals were not killed for three months. I have appended to this paper a tabulated statement of the results of these experiments. In the first building 10 per cent. of the guinea-pigs died from some form of infectious disease other than tuberculosis; in the infirmary 30 per cent., in the red cottage 50 per cent., of the animals inoculated died of tuberculosis. In the 14 other cottages none died of tuberculosis or other infectious disease. Of 81 pigs, the total number inoculated, 5 died of tuberculosis and 4 of other infectious diseases, or 11.01 died of some form of infectious disease. The greatest amount of infection was shown to exist in the red cottage, which is always occupied by the very sick, and in this instance by a careless and dirty patient. Sixteen buildings out of 17 inhabited by consumptives for so long a period as ten years were absolutely free from tubercular infectious material. This is remarkable, since it has been found that dried sputum after the lapse of three years is capable of producing tuberculosis. This is a most conclusive proof that a body of consumptives need not infect the houses they occupy if their secretions are properly attended to.

Each patient is taught to appreciate fully the danger to himself and others of neglecting these precautions. All cuspidors are burned daily, and the Japanese napkins as soon as possible after expectoration. Paper napkins are used in the infirmary in hemorrhage cases, or where patients are too feeble to raise themselves on their elbows. The cuspidors are made by Seabury & Johnson, and are of two sizes, one for individual use, and the other for use in the halls. These latter are elevated from the floor, and are so constructed as to prevent dissemination of their contents by the wind. The tin frames of the cuspidors are frequently washed. The cottages are so constructed as to insure thorough ventilation, and an immense amount of air space is allowed to each patient. There is a smooth wainscoting 8 feet high around the wall, and the iron hospital beds and simple furnishings and few hangings aid in keeping the buildings free from infection. No patient who has been admitted to the sanitarium suffering from pulmonary disease, and in whom no tubercle bacilli were found, has ever developed tuberculosis in the sanitarium. None of the twenty-five attendants has ever developed tuberculosis in the sanitarium.

Heron inoculated 100 guinea-pigs with dust from various sources in the London Hospital for Consumptives. Twenty-six of the pigs died, either of intense inflammation spreading from the site of the inoculation, or from septicemia; 2.7 per cent. died of tuberculosis. The writer has secured dust from a large city hospital containing many male and female consumptives. Twenty-five per cent. of the pigs remaining alive developed tuberculosis, and the remainder died of acute infection.

To-day we know how much more serious are the cases of tuberculosis with mixed infection than those of simple tuberculosis, and it is remarkable in the experiments quoted how many animals died of some other form of infectious disease than tuberculosis. Mixed infection is an important factor in the condition of the tuberculous patient.

Fire is unquestionably the very best disinfectant for sputum. For this reason it is best to use Japanese paper napkins, which may be used once and then burned. Nothing into which the patient has expectorated should be used a second time, or should be allowed to dry. Sublimite solutions cannot be considered suitable for the disinfection of masses of tuberculous sputum. Equal parts of a 5-per cent. solution of carbolic acid and sputum will destroy the tubercle bacilli with certainty. Solutions of chlorinated lime, 1-10 or 1-100, will satisfactorily disinfect the walls or bedding. Sunlight and diffused daylight can be obtained by everybody, and these have been proved to be most efficient means of disinfection. In New York city alone the mortality a few years ago was 120 per 1000, whereas in 1894 it was only 108.46 per 1000. Sunlight, fresh air, good food, outdoor life, and separate cottages for groups of four or five patients offer the best chances for the consumptive.

(Lantern slides were then exhibited, showing the cottages of the sanitarium, their construction and surroundings.)

Dr. E. G. Janeway: We have certainly had presented to us in a very short space of time a number of facts which represent an amount of arduous work which few appreciate. I have been asked to present to you the impression which a visit to the sanitarium made upon me. At a very recent visit there the absolute cleanliness of the place, the amount of air space, and the general freedom made a very favorable impression upon me. I would rather live

in some of those cottages than in some of the hotels so frequented by consumptives and other invalids. In these hotels there is often much reason for doubt as to the character of the persons who have previously occupied the rooms, and also to the cleanliness of the hotels and their appurtenances. When we send away delicate and convalescent patients to such hotels we know that they are almost sure to be brought in contact with many consumptives. A person in delicate health may in this way be made to occupy a room just vacated by a consumptive. We should be very careful about this matter. Again, when we send patients with incipient pulmonary trouble to such resorts we must be careful that their condition is not aggravated. In previous papers I have spoken of the necessity in large cities for great care in the disinfection and destruction of the sputa and other excreta likely to contain tubercular germs. I know from personal inquiry that tubercular invalids are often not warned regarding the precautions that should be taken in attending to the excreta. There are many physicians in this city who simply prescribe for a consumptive, and never say a word to the patient or friends about the danger from the excreta. If the same care were taken in New York city as is taken in this Adirondack sanitarium, I am sure that we would see much less tuberculosis here. I think this paper will impress upon the medical profession the extreme desirability of increased effort to prevent infection. While riding yesterday in a street-car in Philadelphia I saw a notice forbidding expectoration in the car; and while such a notice will not be obeyed by every one, I think it is capable of doing good. There should be uniformity about disinfection, and methods which are proper for disinfection in the city may prove dangerous in the country, where the conveniences are not the same.

Dr. H. M. Biggs: I wish to express my personal gratification to Dr. Hance for presenting this paper, which is upon a subject in which I have had a deep interest for many years. It is exceedingly gratifying to learn that preventive measures in a hospital may be thoroughly efficient. The paper emphasizes the conclusions of Cornet and helps to clear up many questions regarding the dissemination of tuberculosis. We are constantly hearing of the very rare development of consumption in hospitals in which such patients have been treated for many years. This is often used as an argument against the infectiousness of tuberculosis. It should be remembered that where tubercular patients are properly cared for there is little or no danger of spreading the infection. Some years ago a great outcry was raised against classing tuberculous as an infectious disease, because it was said that tuberculosis patients would then become objects of horror and repulsion. It has been hard to make both physicians and others understand that, although tuberculosis is an infectious disease, yet tuberculous patients may be innocuous to their most intimate associates, provided proper precautions be taken regarding the disposition of the sputum. There is positive evidence to show that if such precautions be not taken there is great danger from such individuals. In a recent investigation of a city hospital I found that eleven orderlies or nurses had been dismissed from the hospital in a little over two years suffering from tuberculosis, which had developed during their stay in the hospital. In this hospital the conditions were exceedingly bad, for the wards were overcrowded, there being many cases of advanced tuberculosis; there was no proper system of ventilation, and the class of people treated there was diffi-

cult to control. I think any one connected with any one of the large city hospitals cannot fail to have become impressed with the considerable proportion of patients in the hospital admitted for other complaints who have developed pulmonary tuberculosis as the result of infection in the hospital. These observations by Dr. Hance are therefore of the very greatest service and practical value. In the experience of the Health Department it has been the exception to find that physicians have properly instructed their patients regarding the danger from the sputum, and this seems to me nothing less than criminal negligence and indifference. Even our largest and best hospitals are often very careless in the matter of preventing the spread of tuberculosis. There is less reason for physicians being careless about these things because a definite diagnosis may be easily obtained, as a rule; for the Health Department now makes, free of charge, examinations of sputum for tubercle bacilli. If more physicians availed themselves of this opportunity an earlier diagnosis would often be made, and the patients thereby benefited. I have hoped for a number of years that the city might establish a sanitarium for consumptives among the pines of Long Island, where they could be cared for at a comparatively slight expense, and with a reasonable chance of recovery.

Dr. H. P. Loomis: Ten years ago dust was not thought of as a source of infection in tuberculosis; now even the laity understand the danger which may lurk in it. It is refreshing to know the facts presented in this paper and to see how free from danger a consumptive-hospital may be made. It has been my privilege to visit the sanitarium at Saranac a number of times, and watch from the beginning the treatment of tuberculosis in isolated cottages. Many years ago there was opposition to the establishment of such a sanitarium, both on account of the difficulty of bringing together a number of tuberculous patients, and also because of the supposed depressing effect upon such individuals from a number being collected together. It was also thought that the sanitarium would soon become contaminated and the incipient cases would receive a fresh impetus from those more advanced. Dr. Trudeau never believed this, and the paper of this evening bears out the truth of his position. The separate-cottage plan seems to be the practical solution of the best way of managing and caring for these patients. We all know how such sanitariums are needed; at the present time in this city there is only one hospital which will retain tuberculous patients in its wards, a sad fact, when we consider the large number of this class of patients. It seems to me that this paper proves that wards in a city hospital might be set aside for tuberculous patients, and by the use of such precautions as are taken at the Adirondack Sanitarium no danger would be incurred. I understand that this plan is to be adopted in the new building of St. Luke's Hospital.

Dr. Wolff Freudenthal: I have noticed at the Montefiore Home one fact which is in accordance with Dr. Biggs's experience—*i.e.*, that a number of the attendants have developed tuberculosis in the hospital. The sputum is taken care of as well as possible in such an overcrowded institution, and the ventilation is fair, but the condition of the patients is such that absolute cleanliness is impossible. I think it is possible that the infection has arisen from the dust, as other factors may be excluded.

Dr. Andrew H. Smith: While this subject is one of transcendent importance in our cities, it is also of exceeding importance in our rural districts, and I

hope the facts presented this evening may have a wide circulation in the country. I think many houses in the country become culture-beds for the tubercle bacilli, from the fact that after tuberculous individuals have occupied such buildings no attempt is made to change the furnishings or even to ventilate the houses. It is the habit in the country to keep the houses darkened; to let in the sun is bad housewifery; it would fade the carpets. I have known of whole families being swept away one after another under conditions which seemed to me rather those of house infection than the result of heredity. I wish this matter might be brought to the serious consideration of the country practitioners.

My attention has been called to the condition of the night trains going to such resorts as Saranac. The sheets are pretty well taken care of, but I think the blankets are rarely properly attended to, and for this reason I do not usually sanction taking these trains.

Dr. A. Jacobi: What has been said about the negligence of some of our hotels I know to be true from personal experience, and it applies not only to tuberculosis, but to other contagious diseases, such as diphtheria. I have known of cases of diphtheria developing year after year in the same suit of rooms of our fine hotels, and in most instances the persons so affected were strangers. This is a proof that the carpets had not been cleansed or disinfected, and I also noticed that the curtains were not changed. This is a matter which should receive the serious consideration of the Board of Health. The lowest grade of tenements is not so dangerous in this respect as those houses of the better class—those, for example, holding only from six to ten families. These houses are covered from top to bottom with carpets, which are rarely taken up or even cleansed. This is a fruitful source of contamination with tubercular germs.

Dr. C. A. Leale: The reader of the paper has explained to us something which many have had difficulty in understanding. In visiting the country branch of the London Hospital for Consumptives I was told by the senior physician that they had very few cases of consumption occurring among the internes and nurses, and that he himself had been connected with the institution for a number of years. Rigid rules should be enforced in regard to keeping as free as possible from danger of infection all places previously occupied by consumptives.

Dr. Achilles Rose: In those European countries in which I have lived, which I have visited, England excepted, there are three things missing which exist in this our country, viz.: the carpet, the basement, the dark bedroom. It would be of value if we could know how much these three things are aiding in the spread of tuberculosis.

The President, Dr. Bryant: As health commissioner five years ago I addressed a semi-official letter to twenty-four eminent physicians in this city, asking them if they considered the subject of tuberculosis sufficiently far advanced to justify the Board of Health in declaring it an infectious disease, and taking the same cognizance of it as of other diseases then on that list. Those letters secured five replies. Two of those replies unhesitatingly said "yes." One of them was of doubtful tenor. Another was earnest, long, logical, and fully awake to the situation. Still another was a most emphatic "no." I therefore regard this discussion as an earnest that the past and future efforts will bear much good fruit in the prevention of tuberculosis.

Dr. Hance: In my experience not more than

one patient in forty or fifty had heard of the danger from the excreta, or been instructed as to the proper means of destroying the sputum. My object in writing this paper was to show the public that positive beneficial results can be obtained by taking certain precautions. In connection with the remarks of Dr. A. H. Smith, I recall an article in the *Lancet* of 1894, in which a number of members of a family became infected with tuberculosis. The family physician finally examined the dust from the tops of the doors, and claimed to have found in it multitudes of tubercle bacilli. I have repeated such examinations in the village of Saranac, but my experience in the laboratory has been that it is very rare to find tubercle bacilli in this way. I cannot understand, therefore, how this physician could find such numerous bacilli present. It is my desire to secure dust from rooms occupied in private by serious cases of pulmonary tuberculosis, where great care is given to prevent infection of the rooms.

Many physicians do not comprehend what the Adirondack Cottage-sanitarium is for. It is purely charitable. There is a fixed charge of \$5 per week, but in a few cases where the patients have been there for some time, and are unable to bear the expense of remaining until a cure is effected, Dr. Trudeau is allowed to draw from a small fund and for them. The actual cost per patient is only about \$1 per day, which is less than it costs to keep a patient in our city hospitals. The sanitarium is not for those who can afford to pay more than \$5 a week. It is not unusual for patients to have to wait two or three months for a vacancy. The cases admitted are those in which there is a prospect of a cure or an arrest of the disease. This question is decided by three physicians in New York city: Drs. Jane-way, Loomis, and James. In summer the patients remain outdoors eight or ten hours a day; in winter they are outdoors for six or eight hours a day. The institution was started twelve years ago, and consisted of an old farmhouse, in which Dr. Trudeau did all of the work. At present the sanitarium represents an outlay of about \$75,000. There is provision for eighty patients, and the water service has been recently introduced. Several of the buildings have been heated by hot-water pipes, and this method has been found extremely satisfactory.

SECTION ON SURGERY

December 9, 1895

B. FARQUHAR CURTIS, M.D., Chairman

Osteo-sarcoma of the Upper End of Humerus

Dr. J. A. Wyeth: J. S—, 31 years of age, a grocer by occupation, has no early or family history which throws light on his condition. In 1889 he received an injury to the left arm near the shoulder-joint. It was supposed to have been a fracture. In 1893, when descending from the deck of a ship, he slipped and reached out for a rope, and in doing so strained the arm severely. Four or five months later the arm began to swell. When I saw him first, October 2, 1895, there was a large, round swelling occupying the upper end of the humerus and deltoid region, and extending somewhat over the end of the clavicle and scapula. On October 5, under chloroform anesthesia, I cut down through the deltoid muscle, and came upon a vascular osteo-sarcoma, which had hollowed out the head of the humerus. The bone gave way with a crackling sound, and this was followed by hemorrhage, which could only be controlled by packing with gauze. By October 9 I

became alarmed at his anemia, and injected one and a half pint of hot saline solution into the median cephalic vein. This was followed by marked improvement, but there was considerable hemorrhage whenever the packing was changed, and therefore on October 15 I tied the left transversalis colli, the suprascapular, and left subclavian arteries in the third surgical division. The operation was not easily accomplished. I was afraid to administer ether or chloroform, on account of his exhausted condition, and accordingly 25 minims of a 4-per-cent. solution of cocaine were employed. The patient lost practically no blood from the incision of the tumor at this operation. On October 20 a rapid bloodless amputation was made at the shoulder-joint by the method I first employed in doing this operation in 1889. Two long steel pins were inserted, the anterior one through the skin and part of the pectoralis-major muscle. Over the spine of the scapula, behind the joint, a second pin was passed, quite superficially. Over and around these pins strong rubber tubing was tightly wound several times, and securely fastened. I have performed three similar operations by this method without hemorrhage in any instance. It was the success of this method of amputating at the shoulder that led me to adopt the same method in hip-joint amputations. I did not endeavor to cover the joint surface with cutaneous flaps. On November 19 an injection of five minims of a pure culture of the erysipelas coccus was made, and this was repeated in increasing doses for several days in succession. He has had chills and fever, but there has been no attack of erysipelas.

I have attempted in several instances to induce erysipelas by inoculation, and have found it difficult to do so, although various methods have been tried. I believe if I can induce a true attack of erysipelas in this patient I can cure him. I am fully convinced that there is some unexplained action of the streptococcus which is curative in sarcoma.

I believe that by proper methods the surgeon can do a large amount of minor surgery with a 4-per-cent. solution of cocaine. This is the best strength to employ, and if half a minim of such a solution be injected into the papillary layer of the skin, a skin incision half an inch in extent can be made at this point without pain.

Carcinoma of the Rectum

Dr. H. Lilienthal: I wish to show this patient as an example of the fact that carcinoma of the rectum is not necessarily a very malignant form of disease. This man, 50 years of age, when first examined presented such a condition that I considered it at first an inoperable case. Not only the rectum, but the ischio-rectal fat and the bowel were involved high up. The lower end of the rectum was practically fixed. Colotomy was proposed, but was absolutely declined. The man was an alcoholic subject, and the anesthetic was not at all well borne. There was an unusual amount of hemorrhage, which necessitated haste in operating, and therefore some infiltrated tissue was inevitably left behind. Infusion of saline solution was practiced, and the man recovered. I afterward attempted to twist the bowel sufficiently to secure continence, but the parts were found too friable to accomplish much in this direction. The operation was performed on June 23, 1895. He has been able to attend to his occupation as a plasterer for the past three months, but I think there is a slight recurrence in the perineum. By proper regulation of the diet he is able to get along with only one stool a day.

Case of Dislocation of the Shoulder, with Wide Range of Motion

Dr. C. L. Gibson: This boy, 18 years of age, received an injury to the shoulder about twelve years ago, by which his arm was "jerked out of joint." He presented now an habitual dislocation of the shoulder, with atrophy of the surrounding parts. The amount of motion is quite interesting. The head of the humerus can be dislocated in every direction except freely backward. Considering the excellent range of motion, is it advisable to attempt to improve his condition?

Congenital Dislocation of the Knee

Dr. Thomas H. Manley: This infant was born four weeks ago, after a normal but somewhat tedious labor. Forceps were used only to hasten the last part of the labor. I find on examination a dislocation of the knee backward and downward of the condyles of the femur, and a displacement upward of the head of the tibia. There was no vascular disturbance in the limb. I find but few such cases on record. We know that fractures not infrequently occur *in utero*, but a congenital dislocation at the knee-joint is extremely rare. When the child is a little older I propose to make an effort to restore the bones to their proper position.

Aneurism of the Subclavian Artery

The second patient I wish to show is a man who was injured on board ship by falling with great force upon his left shoulder. A month later he noticed a loss of power in the left arm. The use of the arm was restored after a few months. About one and a half year ago he first noticed a pain and fullness and throbbing just above the left clavicle. It is apparently an aneurism of the first or second part of the subclavian artery, and has produced a subluxation of the sternal end of the clavicle. This man had syphilis in early life. He was kept almost exclusively in bed for one year, and treated with large doses of iodide of potassium, as a result of which his general health became greatly deteriorated. There are now no pain and no urgency of any kind, and hence I thought it was better to treat the case largely expectantly. I have, however, employed systematic manipulation, with the hope of favoring a deposition of fibrin, and I think this has already occurred, and that the case is undergoing a spontaneous cure.

Supramalleolar Osteotomy for Flat-foot

Dr. Willy Meyer: On this woman, who is 23 years of age, I performed supramalleolar osteotomy for flat-foot in April, 1893. I have treated five patients suffering from flat-foot in this way, performing 10 double osteotomies on them. The first dressing in this case was removed after 12 days, as usual, and the position of the foot corrected. The second dressing was removed after 30 more days. Meanwhile the hospital service had changed. She was allowed by the house-surgeon to get up without any support. This was a mistake. As a result of this lack of support, she soon developed pain on the right side, the left being then in a perfectly painless condition. By July a real "traumatic" flat-foot had developed on the right side, which prompted Dr. Gerster, who then was in service, to remove a wedge of bone out of the projecting malleolus. When I saw her in October the right foot was in comparatively good position, but the left now again exhibited symptoms of flat-foot, due to over-exertion. In February, 1894, Dr. Whitman twice applied plaster-

of-paris, and afterward his own flat-foot plate. She wore this for a year. She is now doing well. I have noticed in my younger patients that the scar resulting from the operation has always traveled upward. I almost believe this is due to more rapid growth of the bone, on account of the traumatic irritation of the epiphyseal cartilage. I have formerly been very enthusiastic with reference to this operation, but now agree with Dr. Whitman and others that it is only in the very pronounced cases of flat-foot that it is called for; in other cases, the foot should be placed in proper position and treated according to the method recently described before this section by Dr. Whitman.

The Chairman, Dr. Curtis: Regarding the use of cocaine, I would say that I have used it in several major operations, for instance, in performing gastrotomy and exploratory laparotomy for intestinal obstruction, and have found it very satisfactory. When carefully used it can often be advantageously substituted for general anesthesia.

Dr. Goodwillie: I have used cocaine in the removal of tumors of the face, injecting $\frac{1}{2}$ -per-cent. solution, in large quantity. I have removed a tumor from the cheek the size of a chicken's egg, under cocaine anesthesia, without the patient experiencing any pain.

Dr. Meyer: I would not like to use a 4-per-cent. solution of cocaine hypodermically unless it were combined with a $\frac{1}{16}$ grn. of nitroglycerin to combat the untoward action of the cocaine on the brain. Two years ago it was stated by Schleich, of Berlin, that a $\frac{1}{16}$ -per-cent. solution of cocaine combined with a $\frac{1}{4}$ -per-cent. of saline solution with the addition of $\frac{1}{4}$ grn. of morphia acts admirably. This can be injected in large quantities and without danger. It may be very dangerous to employ the strong solutions of cocaine hypodermically. We cannot know our patient's idiosyncrasy "before" the administration of the drug.

Dr. Manley: I have used cocaine in major amputations of the arm and leg with the greatest satisfaction. I think it is very important that alcohol internally should be employed simultaneously with the cocaine; it seems to increase the analgesic action. It has been wisely recommended to use a 1-per-cent. solution hypodermically, and not to exceed a total quantity of 1 grn.—the dose by mouth.

Dr. Wyeth: I performed some of the very first operations done in this country under cocaine, and have done many hundred operations with it. I have never in my life seen a suggestion of the toxic effects of it in my own practice. I have seen toxic effects from its use in urethral work before I knew how to use it. I have rarely used more than twenty minims of a 4-per-cent. solution for any operation. I never put in more than two minims at any one time, and I make my incision at this point so that the solution is quickly evacuated. I have tried solutions of various strengths, but have been led to believe that the 4-per-cent. solution is the best. I have done appendicitis operations under cocaine anesthesia, and have removed the upper part of the sternum and part of two ribs under cocaine anesthesia, and practically all ordinary surgical work.

Dr. C. L. Gibson: I used Schleich's weak solution of cocaine and morphia in dispensary practice in about fifteen cases, but the anesthesia was so slight that I abandoned it. The majority of the cases, however, were cases of suppuration, and in this class cocaine often fails.

Dr. Dawbarn: It is well known that cocaine kills by contracting the blood-vessels of the cerebrum,

thus shutting off oxygen from the respiratory center. The respiration fails first, the heart follows.

Now, nitroglycerin, when combined with cocaine, is of value only or mainly by its power to paralyze unstriated muscle, and thus dilate blood-vessels.

Instead of using it, I always give the patient a large drink of whisky or brandy before injecting the cocaine for any serious operation. Thereby we accomplish two things: we dilate the cerebral vessels, very much as nitroglycerin does, and we aid the anesthesia, because the alcohol is itself a fairly good analgesic.

Dr. Lilienthal: I have had occasion to tie several arteries under cocaine anesthesia—the radial and the external carotid—and I have noticed that the seizing and tying of the artery always caused severe pain.

Dr. Wyeth: It is almost invariably the rule that the ligation or seizure of a blood-vessel with the forceps causes pain, and this the cocaine does not seem to reach. This is true even of arteries of smaller size, and I would infer from this that the vaso-motor system of nerves contains also sensory fibers.

Dr. Wyeth: I would like to ask Dr. Lilienthal if he has excluded syphilitic disease by appropriate treatment.

Dr. Lilienthal: The man received energetic anti-syphilitic treatment for one week with no effect whatever.

Dr. Dawbarn: I understand from Dr. Lilienthal, in response to an inquiry, that he advised inguinal colostomy before this rectal resection, but it was refused.

I would like to class myself with those surgeons who now advise inguinal colostomy in all cases of cancer of the rectum;—in the early cases, as a preliminary to excision, and in order to avoid that common factor in the high death-rate of operation, namely, infection from feces. Later on, after the rectal operation-wound has healed, the colostomy is allowed to close, which in time it will usually do spontaneously, the feces then resuming the rectal route. In the late cases of cancer (inoperable ones) I would also advise inguinal colostomy, because the obstruction to passage of feces is thereby avoided, and the suffering also, from fecal irritation of ulcerated surfaces; and again, probably the rate of growth of the cancer will be less with the cessation of that continual irritation. Of course, in these cases, the colostomy is to be permanent. The percentage of death from the operation of inguinal colostomy is now very low, between 4 and 5 only. There is at least 20 per cent. mortality in excision of the rectum for cancer. I believe the adoption of this plan will decidedly reduce this high death-rate.

Dr. Royal Whitman: I have seen a number of cases similar to the one exhibited by Dr. Manley, and I have always considered them instances of over-extension of the leg *in utero*. If the joint surfaces are held in apposition by some apparatus, and the leg flexed from day to day, I think by the time the child is able to walk the deformity and contraction may be overcome. The treatment should be begun at once, otherwise valuable time may be lost.

Dr. Manley: There seems to be a retracted state of the ham-strings which apparently makes it impossible to bring together the articular surfaces in the manner described by Dr. Whitman. I had intended to wait until the child was about three months old before instituting treatment.

Dr. Wyeth : It seems to me that in the treatment of Dr. Manley's case the exact location of the aneurism is of vast importance. Nearly all of these tumors spring from the arch of the aorta, and deceive us into the belief that they are subclavian aneurisms. I should think the case probably one of aortic aneurism, involving the mouth of the subclavian. I have operated upon a number of cases by distal deligation. It certainly produces a permanent coagulation in a number of these large aneurisms. I do not believe that the effect of distal deligation on tumors of the transverse arch of the aorta justifies us in doing this operation. For an aneurism of the arch of the aorta, in which no other treatment seems to be of avail, I think the insertion of numerous silver pins, and allowing them to remain for twenty-four hours, and repeating this operation, will have an excellent effect. I have had marked success with this method. In one such case the man died suddenly two years after the operation, from a cerebral embolism. This danger of clot washing out of the tumor subsequently is one which should be submitted to the patient before resorting to the treatment.

Dr. Manley: The fact that the man had sustained traumatism directly over the artery itself would point to a direct injury of that artery. Another fact is that there is an entire absence of the usual pressure-effects found in aortic aneurism. In operations on aneurisms there is always danger of secondary hemorrhage or of gangrene.

Two Successful Hip-joint Amputations, One of Which was Performed by a New Method

Dr. F. Tilden Brown : Case I.—Small round-cell sarcoma of the left biceps femoris; amputation at the hip through a Fourneau Jordan incision. The patient, 22 years of age, injured his left knee when 10 years of age. Four years later swelling was noticed on the upper aspect of the joint. The growth became rapid three months before examination. This examination showed a tumor above the knee, not involving the joint, and not pulsating. Bloody fluid and semi-gelatinous material were evacuated by an exploratory incision. The pathologist's report showed the tumor to be a round-cell sarcoma. Eight days after this, amputation was performed under ether. The limb was pierced with needles after the method of Wyeth for controlling the hemorrhage. The femoral artery was ligated with silk, and the others with catgut. The operation lasted 25 minutes, and the patient left the table in good condition without stimulation. The first change of dressing was made nine days later, and it was found that primary union had occurred throughout. He was discharged about one month after the operation. The hemostatic effect of the rubber tubing supported by the needles was all that could be desired, but the skin and muscles were rendered so hard by the tubing and needles as to make the region much less accessible than if they had not been used.

Case II.—Tubercular osteo-arthritis of the hip; amputation of the hip-joint by a new method. The patient, 27 years of age, a female, had been well up to four years ago, when she had fallen and injured the left hip. About two years ago she began to have pain in the left hip and knee when walking. She had remained in bed about five months, and on getting up had had an abscess at the trochanter, and the limb had been much flexed. Her temperature was 102.4°, and physical examination showed pleurisy at the base of the right lung, and tubercle bacilli in

the sputum. There were boggy areas about the hip, and a discharging sinus. She suffered great pain on the slightest movement. On July 11, 1895, an incision was made anteriorly under ether anesthesia. This incision begins one-half inch below the anterior superior spinous process of the ilium, between the sartorius and rectus on the inner side, and tensor vaginae femoris and glutei on the outer. A cavity containing debris (tubercular) was revealed about the capsule, and advanced tubercular disease within the capsule. By the use of the flushing gouge this material was removed. After a brief massage of the leg and thigh, the limb was held perpendicularly. One jaw of a specially made clamp was passed through the incision and under the sartorius to underlie the sheath of the vessels, close to Poupert's ligament, the other jaw bearing on the integument. The handle of the clamp rested on the abdomen. It was quite easy to apply this instrument to the vessels. The existing incision was extended along the outer border of the rectus down to the bone, and the remaining attachments stripped off. The femoral vessels and their branches were absolutely dry on the proximal side. On turning back a cuff, it was easy to remove the head of the femur and divide the round ligament. The diseased portion of the acetabulum was curetted, and the wound flaps united by catgut. One and a half liters of saline solution were thrown into the cephalic vein, and its beneficial influence was at once apparent. She rallied nicely from the operation, and for the next six days the temperature did not rise above 101°. Then the pulmonary symptoms became more marked. On changing the first dressing, four days after the operation, it was found that the union throughout was excellent, and there was no evidence of injury to the tissues from the pressure of the clamp. Five weeks after operation she was discharged from the hospital.

In this case, before operation, I looked for some hemostatic device which would admit of making an exploratory incision, and if it were found that excision was not advisable would allow of the ready conversion of the operation into one of amputation of the hip-joint. The clamp pressure was, of course, based upon the idea of an assistant making digital compression upon the femoral vessels through the upper angle of the wound. Its advantages are:

1. The incision permits the best exposure of the joint through tissues containing no nerves or vessels of any importance, and also serves for easy adjustment of the clamp on the vessels.

2. The angular shape of the clamp is such that, while it accurately compresses the femoral artery and vein in their sheath on the overlying skin, it is also an excellent retractor for the sartorius muscle.

3. The continuation of the incision along the upper border of the rectus is one containing the minor branches of the sciatic, and furnishes a wound through which the femur can be vertically raised.

4. Because the anterior position of the incision leaves the wound and the sutures in an excellent position for the operator and for subsequent dressings.

5. The operation can be performed in a shorter time than by any other method in which the hemorrhage is as perfectly controlled. I believe that in the majority of cases the failure to control the gluteal and trochanteric branches may be neglected. The same holds good of the sciatic artery and its branches. The crural nerve entirely escapes compression by this method.

Dr. Wyeth: I think this device of Dr. Brown, under the particular circumstances of that operation, —i.e., tubercular destruction of the head of the femur, and the necessity for an exploratory incision as a first step, to be followed by amputation,— is very creditable to his ingenuity. It seems to me, however, that the same amount of anemia might have been obtained by a simple preliminary deligation of the femoral artery, and the femoral vein after it had been emptied. This could be done under cocaine. The method does not, however, control a good part of the arterial supply to the thigh; and if shock is due to hemorrhage, I am sure that such a procedure is not the best available. In my method with the pins I have so far changed the operation that both the pins are inserted higher up than formerly. In the last operation one of the pins was inserted right at the insertion of the adductors at the pubis, and the others at the anterior superior spine, and in this way the field of operation was not interfered with in the least; the hip-joint was readily entered, there was no hemorrhage, and the operation was completed in 25 minutes. In my last three amputations at the hip-joint I have left the bone undivided, so that it could be used as a long lever to facilitate disarticulation. As far back as 1882 temporary constriction of the vein and artery, as here done by Dr. Brown, was made by the introduction of a small needle under the vein and artery and the use of the figure-of-8 ligature. The opening of the abdomen to secure digital compression of the aorta is, to my mind, a surgical absurdity. The obturator, gluteal, and sciatic are all good-sized vessels, and are independent of the control of the femoral artery itself.

Dr. Dawbarn: The speaker of the evening (Dr. Brown) has given us a most interesting paper. As Dr. Wyeth has just alluded to the relative value of his own method, and that by the special appliance of Dr. Brown for controlling bleeding, I shall say nothing upon that point. But since the discussion was to be upon "A New Method of Hip-joint Amputation," as the Section-notices stated, and since Dr. Brown laid stress upon speedy work as an advantage of his device, it is in order to discuss other methods new to this amputation, and aiding speed.

Accordingly, I would say that for many years past I have advocated, in all thigh amputations, beginning by "ham-stringing" the patient. The thigh amputations done as originally leave a stump full of holes and "dead spaces," because some of these muscles when cut may contract even inches farther than do others, though all be divided at one and the same level. *Suture en étage* was devised to overcome this defect: sewing together the muscles, often in several tiers of sutures, before the skin sutures are reached, in order to get a solid stump thereby. If now (after "milking" out the blood from the elevated limb, and even before the Esmarch bandage or rubber tube be applied) the surgeon divides with two bold strokes the tight ham-string tendons, he will have cut all the muscles which contract farthest. And now, when he does his amputation, he will have, of course, a much smoother stump-end; for all the muscles will now remain about at one and the same level. The anatomical reason is obvious. All of the five ham-string muscles, save part of one of them, have no attachment to the thigh-bone, but simply pass over it on their way from the pelvis to the leg. These muscles, when cut, contract a long distance. All the rest of the thigh-muscles, being bound down by long insertions into the thigh-bone, cannot, of

course, contract far, when cut at any point. If we "ham-string" the patient, we have divided those muscles which ordinarily would contract farthest, as stated above.

Dr. Brown: The intermuscular incision described does not allow of the ligation of the femoral vessels through the wound, and I think Dr. Wyeth misunderstood me on this point. The old anterior incision does not give one an approach to the joint. The main point in my paper was the accessibility of the joint through this particular anterior incision, and the application through that same incision of a simple means of controlling the femoral vessels and their branches. I am inclined to think that the compression of all the vessels through the tissues firmly bound with elastic tubing may affect the vasomotor supply to these vessels in such a way as to make the subsequent oozing more troublesome than where the vessels are directly controlled by a strictly localized and less diffuse compression.

A Post-mortem Examination on the Parts Involved in the Bassini Operation, Six Weeks after Its Performance

Dr. George Brewer: The patient, a man about 48 years of age, was admitted to the City Hospital early in September. For seven months previously he had been troubled by a right inguinal hernia, which had not been properly retained by a truss. A right oblique inguinal hernia was found, about the size of an orange. Having a bronchitis at that time, the operation was postponed until this had subsided, or two weeks. No untoward symptoms followed the operation, except a slight return of the bronchitis. The dressings were removed on the fourth day, and the wound was found to be united throughout. At the next dressing several portions of the wound were found to have separated. Portions of the sutures were found loose and were removed. About five weeks after the operation and complete healing of the wound, the patient was suddenly seized with incomplete right-sided hemiplegia, and he died seven days later. This attack was considered to be due to cerebral thrombosis. A slight superficial thickening of the tissues in the region of operation was found on palpation. On opening up the parts, only a slight puckering was found in the region of the internal abdominal ring, and firm pressure gave no evidence of weakening of the abdominal wall, but a minute drop of whitish fluid was expressed, and a minute fragment of the catgut used in ligating the sac. The fluid was found to contain a few leucocytes, but no micro-organisms. The skin and subcutaneous areolar tissue were moderately adherent to the aponeurosis of the external oblique; the divided aponeurosis had firmly united throughout; at the upper portion of the wound some of the silk-worm gut was found deeply imbedded in the tissues, and apparently aseptic; the floor of the inguinal canal was firm. Between the aponeurosis of the external oblique and the floor of the canal the vas deferens and spermatic artery and a number of small veins could be seen lying separately, and apparently healthy. None of the kangaroo-tendon sutures could be found. I have been unable to find a report of such a post-mortem examination at such a short period after the operation, and therefore thought this report might be of interest.

Sclerotic Rhinitis.—Good results have been obtained in this affection from applications of a 50-per-cent. solution of ichthyol in liquid petrolatum.

SECTION ON GENITO-URINARY SURGERY

December 10, 1895

ALEXANDER W. STEIN, M.D., Chairman

Excision of the Epididymis in Tubercular Testis

Dr. S. Alexander: This is a case of double epididymitis in which the epididymis was removed on both sides. In January, 1894, he suddenly noticed that his left testicle was swollen, and he experienced some pain in the left groin. For some time he used some ointment upon the scrotum, probably blue ointment, and also took internally what was probably iodide of potassium. About May 1 an abscess developed in the right side of the scrotum, and was incised. It has been discharging ever since then. Examination showed on the left side a hard, nodular epididymis, somewhat tender, and having a discharging sinus. On the other side the testicle was also swollen, and in a similar condition to that on the right side, although not so advanced. On June 7 an incision was made along the side of the scrotum, close to the sinus, the testicle exposed, and the epididymis dissected off from the testicle, and removed as thoroughly as possible. The divided margins of the parietal layer of the tunica vaginalis were stitched together over the testicle, and then the latter was inverted, and stitched to the cord with fine catgut sutures. A drainage tube was inserted, and the wound was closed with fine catgut sutures. The left epididymis was excised in a similar manner. On the fourth day secondary hemorrhage occurred from a small bleeding point in the scrotum. He was discharged early in July as "cured." He reported yesterday at the hospital again, and I present him to show his present condition, and also to exhibit the specimens removed by operation. Microscopical examination of this testicle shows a characteristic tuberculosis, and tubercle bacilli were found in the fresh sections.

The second case I have to report is that of a mulatto, 23 years of age, who was admitted on May 22, 1894, to Bellevue Hospital. He stated that he had had gonorrhea three years before. Two years later there had been a second attack, in which both testicles had become swollen. After about two weeks sinuses formed on both sides. Examination showed two hard lumps at the head of each epididymis, and both testicles were sensitive to pressure. There was moderate cystitis. On May 24, 1894, he was operated upon, and three white nodules removed. The wound closed promptly. Last October he reported that the testicles gave him no trouble, and that he was well, with the exception of frequent micturition.

I wish to show a third specimen. One testicle was enlarged and tubercular, and the other testicle was atrophied and exceedingly painful. Believing the testicle to be useless, this was also removed.

Dr. F. Tilden Brown: The operation for the removal of the epididymis for tuberculosis, leaving in the major part of the cord and testis intact, seems to me an unusual one, because so generally associated organs are likewise involved. The result has certainly been good in the case presented, and is an excellent example of what can be done for tubercular disease isolated in the epididymis. It would be interesting to know whether the prostate and seminal vesicles had become involved in the tubercular process. The apparently excellent general physical condition of the patient is also worthy of remark. I should like to ask the object of inverting the testis.

Dr. Alexander: The reason for inverting the testicle and stitching it to the cord was in order to sup-

port the testicle better. A very small amount of the cord was necessarily left attached to the testicle, and hence the inversion of the testicle to reduce the amount of dragging on the cord. In the first case there was undoubtedly no involvement of the prostate and seminal vesicles. In the second case there was undoubtedly disease of the prostate, and the urine has remained distinctly purulent since the operation.

Dr. C. L. Gibson: This man is 59 years of age, and has marked pulmonary tuberculosis. About three months ago the right testicle was accidentally squeezed and became inflamed and enlarged. Since then it has remained enlarged, and there is apparently a typical tubercular epididymitis. On the other side there is a condition similar to that seen in syphilitic orchitis. Notwithstanding the local appearances, it is fair to presume that the process is tubercular, but I should like an expression of opinion on this point.

Dr. Brown: I am inclined to think that both testes are affected with tuberculosis, although the left side presents a condition suspiciously like a syphilitic orchitis.

Dr. Ramon Guiteras: I take the same view. On careful palpation of the left testicle, one can detect a distinct enlargement of the epididymis separate from the testicle, and the little depression between the two, which at present seems to be puffed by a fluid exudation, which marks it.

Dr. Alexander: I think that there is undoubtedly fluid in the tunica vaginalis on the left side, which obscures the outline of the testicle and epididymis.

Dr. George E. Brewer: I agree with the last speaker as to the condition on the two sides. Today I saw a similar case, in which the diagnosis was only made after removal of the fluid. There was no reason to suppose he had tuberculosis, and he had just passed through a decided syphilis. There was no involvement whatever of the spermatic cord or seminal vesicles.

Dr. W. K. Otis: I think there can be little doubt that both testes are tubercular. As a rule the epididymis on the side affected is more prominent than it is in this case, but the onset of the disease and the presence of fluid point to a tubercular condition in this case.

Dr. John Van der Poel: I have seen a case similar to the one spoken of by Dr. Brewer, and I thought it was tubercular, but the patient had just passed through an attack of syphilis. The case under discussion is apparently tubercular on both sides, and, as Dr. Otis remarked, the fluid exudation upon the left side, rather than obscuring the diagnosis, would tend still more toward showing that it was of this nature.

Postponed Discussion on Dr. Guiteras's Case of Pyonephrosis Due to Nephrolithiasis

[For Dr. Guiteras's paper see p. 4.]

Dr. Eugene Fuller: According to Israel's statistics, when the condition of the other kidney is not positively known, there is less mortality in conditions of pyonephrosis from doing a primary nephrotomy and subsequently a nephrectomy. In this way the kidney is collapsed after the drainage, and is more easily removed; moreover, after the primary operation a better opportunity is offered for studying the secretion of urine from the other kidney. Last Friday I operated upon a somewhat similar case to the one reported by Dr. Guiteras. The patient was a man about sixty-five years of age, who had had repeated attacks of suppression of urine, due to renal irritation, and not to prostatic obstruction

(as the case had been previously diagnosed). I diagnosticated abscess of the left kidney and attempted to flush it, but this aggravated his condition. I then cut down upon the kidney and removed a calculus about the size of a cherry. The secretion of urine has been abundant since, and I shall probably ultimately do nephrectomy to prevent further trouble, since the kidney is markedly hydronephrosed. From the condition of the kidney in the case reported by Dr. Guiteras I think he did the best possible thing under the circumstances in removing it.

Dr. Alexander: I think Dr. Guiteras did the right thing in his case, considering the condition of the kidney. A nephrotomy would have probably taken quite as long as the nephrectomy. But I think it is a good general principle to perform nephrotomy as a primary operation. The condition of the other kidney at autopsy shows that a nephrectomy was perfectly justifiable, and that the secretion of urine would have been in all probability so good that even though a nephrotomy had been done primarily the nephrectomy would have been undertaken subsequently. I do not believe that hot baths and very strong hydragogue cathartics do much good; I prefer the administration of large quantities of water and mild diuretics.

Dr. Van der Poel: I recently saw a case operated upon by Dr. McBurney, in which the left kidney, being tuberculous, had been removed. At the time of operation the right kidney and ureter appeared to be normal, as far as could be made out by the hand within the abdominal cavity. A few hours after operation the patient passed 4 oz. of urine, and then continued perfectly well for seven days, and without exhibiting any symptoms of uremia. She died on the twelfth day, and on post-mortem examination the right kidney was found to be the seat of extensive cystic degeneration, and the right ureter had degenerated into a fibrous cord. It had been impossible to make a cystoscopic examination, or to sound or catheterize either ureter, on account of a congenital malformation of the urethra, which would permit of no instrument being passed.

Dr. W. K. Otis: I do not think sufficient stress has been placed in this discussion upon the importance of catheterizing the ureters in these cases, a proceeding which can be accomplished with comparative ease in most cases, especially in the female, by the method of Dr. Howard Kelly. When possible, the condition of the other kidney should always be determined in this way before proceeding to either nephrectomy or nephrotomy.

Dr. Brown: As the case presented itself to Dr. Guiteras clinically, I think most of us would have treated the case as he did, but, in view of the result of the operation, I think it would have been better to open the kidney, and remove such calculi as could have been easily taken out, and leave the kidney for the time. I am a believer in hot packs and steam baths, and even hot poultices, applied as a means of promoting secretion of urine, and in general I would prefer pilocarpine to digitalis. I am also a believer in intravenous hot saline infusions, one and a half to two liters or more.

Dr. Guiteras: My observations before the operation, and during the intervals when the diseased kidney was plugged with calculi, led me to think the other kidney was in pretty good condition. Some years ago I had considerable experience with acute suppression of urine, and I then became convinced that nothing given internally would so quickly promote the secretion of urine as the sweet spirits of niter. Cupping over the kidneys I think is better

than any other local means. Strychnine and digitalis were given at a time when I considered the patient was too weak for the use of pilocarpine or wet packs.

Dr. Alexander: I cannot see how any one who will carefully examine this specimen can doubt for a moment that the proper course to pursue was nephrectomy, and not nephrotomy, for it is evident that it would have been impossible to remove the calculi piecemeal.

The Perfected Metro-Urethrotome and Some Other Instruments.

Dr. F. Tilden Brown: The present metro-urethrotome is an improvement on the instrument I showed in 1885, and published in *The Medical Journal* of February 12, 1887. The improvement consists in having the two screws which control the bulb and the blade placed together in such a way that the thumb and forefinger can manage both, and also in an improved construction of the dial. Even in extremely dense strictures I have been pleased with the ready manner in which the metro-urethrotome has done its work. For the detection of separated ring strictures, and the cutting of them without inflicting unnecessary wounds on the sound urethra just behind and in front of these points, the metro-urethrotome seems to me to be especially adapted. The ordinary method of performing urethrotomy is decidedly inaccurate, and it is not uncommon at the first cut for the sound urethra to be incised and the stricture escape division. The metro-urethrotome has a bulb which can be dilated. It is introduced closed to the bulbo-membranous junction, and then opened and drawn forward in exactly the same manner as with the Otis urethrometer. When it is held by the stricture which it is desired to cut, the blade is unsheathed on the upper part of the bulb, and the stricture divided. The blade is again sheathed, and the next stricture divided in a similar manner. By a tilting motion of the handle the blade is brought against the stricture, and the latter slowly and safely divided.

Experience has shown that the Maissonneuve is most advantageously used only when the canal is so tightly strictured as not to permit the introduction of the usual dilating urethrotome. The value of the Maissonneuve is in direct relation to the tightness of the stricture, provided, of course, that the latter is not an impassable stricture. The whalebone guide for the Maissonneuve is much better, in my opinion, than the filiform attached to the tip, for this slender guide often doubles upon itself, and proves thoroughly unreliable. All the whalebone guides should be tested in the tunnel of the instrument before beginning the operation. If the stricture be not deep, the straight staff is the more convenient instrument. The handle of the instrument is generally too slight. In March, 1881, I showed before this Academy a collection of various illuminating apparatus. I then preferred a head-mirror, used in connection with an electric light. After much experimentation, I found that an imported electric head-light answered the purpose admirably.

I wish to exhibit again a simple contrivance for retaining the perineal drainage tube in position. The holder is secured to the patient by tapes, and, by means of a screw, catheters of various sizes are gripped by the holder.

I also show "a fender" attached to a catheter, and intended to be used in connection with irrigation of the urethra, and so to prevent unnecessary soiling with the return fluid.

For facilitating external urethrotomy, I have de-

vised a probe-pointed, grooved catheter. Sometimes it is difficult to pass through the wound to the staff in the urethra anything larger than a director, and on this as a guide must be passed a catheter, on which it is at times necessary to cut before the finger can be inserted. This is sometimes quite difficult, and I have therefore devised this combination instrument.

Dr. Brewer: These instruments are certainly very clever and ingenious. I am particularly pleased with the last instrument, which surmounts a difficulty very commonly met with in external urethrotomy. It seems to me that the improved metro-urethrotome is decidedly superior to his first one.

Dr. Guiteras: The head-light referred to seems to be excellent for illuminating the urethra, and is superior to the usual light supplied with the endoscopic lamp. The Welsbach gas-burner and an ordinary head-mirror furnish very good illumination for this work, and at present are usually employed by me in endoscopy, although I use the Otis lamp, attached to the endoscope, in all difficult cases.

Dr. Pedersen: I have found the catheter fender an excellent device for holding the perineal tube. It is much lighter than the metal retainer described by Dr. Brown, and is more comfortable to wear. In a recent case, the ring of the metal clamp became so corroded that it was impossible to move it back and forth

old, is presented to show the lax ligaments of the hip, and also the splint which I am using to overcome the dislocation of the hip. This splint consists of a rigid perineal crutch without the encircling band of the Thomas splint, and provided with rack and pinion, for making traction. In knee-joint affections, where there is a certain amount of flexion, this kneepiece can be made to exert a certain amount of pressure backward. I have used the apparatus in a number of private cases, and it has acted admirably in reducing knee-joint deformity. This child was brought to me when quite young, because of the relaxed condition of the knee ligaments, allowing hyperextension of the limb. There is also a congenital dislocation of the hip. When first seen the leg formed an angle in hyperextension with the thigh of about 120° , and, as the child was young and quite fat, instead of applying an apparatus or plaster-of-paris, I contented myself with instructing the mother regarding the proper manipulations.

The next case is one of lateral curvature occurring in a young child who also has knock-knee. The curvature has not increased during the last twelve months. I presume it is one of those cases of congenital deformity.

The next patient has knee-joint disease with a certain degree of laxity of the joint. In addition to tubercular disease of the knee-joint there is extra-capsular abscess of the hip. There is a little subluxation outward of the head of the tibia, and a laxity of the ligaments, as is shown by the lateral motion.

Here is another little girl presenting marked lateral curvature of the spine, a barrel-shaped chest, and relaxed knees and ankles.

This little boy shows well the condition of relaxation of the ligaments of the knee-joint. He has been operated upon for knock-knee, and has, as many children do, relaxation of the ligaments following treatment by plaster-of-paris for retention.

Here is a girl of 14 years who presents laxity of the ligaments of the knees, and also exhibits unsatisfactory union following an osteotomy of the tibia.

The next patient I desire to show you is a little boy. He had an antero-lateral curvature of the femora, also elongation of the head of the tibia. We have done a cuneiform osteotomy of the tibia, which served to partly correct the deformity; then a supracondyloid osteotomy, which has very nearly effected a complete correction. With the aid of apparatus I think this laxity of the ligaments can be overcome.

I wish to report next the case of a girl of 19 years, who came to us about six years ago for a condition of knock-knee, apparently due to laxity of the ligaments and an improper habitual position. She wore a Thomas knock-knee brace for about eighteen months. As she did not improve, she was admitted to the hospital and was subjected to a supracondyloid osteotomy. This yielded an excellent position, but after the removal of the dressings it was found that there was great laxity of the ligaments. After wearing apparatus for a time, alcohol was injected about the knee, but both methods of treatment were without result. She has been readmitted to the hospital a number of times, the last time with a hysterical hip. Under an anesthetic the true condition of the hip was discovered. She has also been treated with antisyphilitic remedies without much improvement. Four years ago a mass of apparently tubercular glands appeared on one side of the neck, and these were removed before they broke down.

SECTION ON PEDIATRICS

December 12, 1895

FLOYD M. CRANDALL, M.D., Chairman

Cretinism

Dr. J. H. Fruitnight: I desire to present a case of cretinism. The photograph which I exhibit will show his condition at the time of admission to the hospital. When four years of age the child was admitted to the St. John's Guild Free Hospital for Children in January, 1895. The child was of foreign parentage, and neither of the parents nor grandparents was related. This child belongs to a family of four children, and the others are healthy. When about one year old the child was noticed to protrude its tongue, and its skin became yellowish. At present it has ten teeth, the upper ones broken off near the gums, and the lower ones small. The child has never attempted to creep, nor can it say one word. During the past four months there have been three attacks of renal colic, and several small stones have been removed from the bladder. His length is twenty-five inches, and the circumference of the chest nineteen inches, and the circumference at the umbilicus eighteen inches. His weight is sixteen and a half pounds. On admission the skin was yellowish, dry, and scaly, and the bridge of the nose was broad and flat. The bones of the arms and legs were curved outward; the spine showed lordosis. From October 2 to November 17, desiccated thyroid extract was given in doses of from 1 to 3 grn. three times a day. Now he receives $\frac{1}{4}$ grn. t.i.d. His temperature did not rise above 100° , and his general condition improved rapidly. He now shows considerable mental improvement. On December 1 his weight was seventeen and one-quarter pounds, and at this time he was also given Fowler's solution.

Relaxed Ligaments; Splint for Dislocation of Hip

Dr. V. P. Gibney: Before reading my paper I desire to present several illustrative cases. The first one, this little girl, two years and five months

The knee-joint now presents some symptoms which make me think tubercular disease of this articulation may have been engrafted on the former condition.

Early Symptoms of Joint Disease

Dr. Le Roy W. Hubbard read a paper with the above title. (See p. 12.)

Dr. W. R. Townsend: I have found that the errors in diagnosis are almost always due to failure to properly examine the case. It often results from the failure to compare the two sides of the body. The reflex spasm is the all-important symptom, and is not at all difficult to detect, although difficult to describe. There is a certain resistance to motion which cannot be overcome by attempts at movement of the joint. If the resistance be voluntary, quite steady pushing on the limb will cause it to yield, but if there be joint disease and reflex muscular spasm, you will find that, although you employ great force, it is impossible to carry the limb beyond a certain point. In cases of doubt, much help can be derived from comparing the motions of the two sides and at the hip in watching the tilting of the pelvis. The normal mobility of the spinal column is much greater than many suppose, and all practitioners should make a careful study of the normal motions, so as to be able to recognize anything abnormal. In the spine the detection of the reflex muscular spasm gives us the key to the diagnosis.

We should also bear in mind that early in Pott's disease there is frequently a lateral deviation associated with the caries of the spine. The discovery of this lateral deviation often leads physicians to make a diagnosis of lateral curvature, and not look further, and this, too, in cases in which there is a clear history of the early symptoms and signs of Pott's disease. This lateral deviation is often present even before the other signs of Pott's disease are well marked. With a thorough knowledge of the symptoms, and a careful, systematic examination, the early diagnosis of joint disease is not, as a rule, difficult.

Relaxed Ligaments

Dr. V. P. Gibney: I find that in the spinal column the ligaments play a rather unimportant part in the deformities of this column. Among the ligaments of the vertebral column may be mentioned the anterior common vertebral ligament, the posterior common vertebral ligament, the ligamentum subflavum. The last connects the laminae with the particular processes. It has been asserted that the function of those ligaments was to bring the body to the upright position after it had been bent by the muscles. Mr. Morris seems to prove conclusively that the ligamentum subflavum has very little to do in restoring the spinal column to an erect position. There are, of course, a number of small ligaments for the purpose of binding together the vertebrae, not only by their bodies, but by their laminae and transverse processes.

In the hip-joint there are the various ligaments which hold the head of the bone into the acetabulum, but, if the acetabulum be imperfectly developed, the head of the bone cannot be held in place, showing that bony support is an important factor also.

In the knee-joint we have the internal and external lateral ligaments very often affected in knock-knee. The internal ligament is stretched and the external ligament shortened by contracture, and this is followed by an elongated condyle and head of

the tibia as a result of the removal of the normal pressure. Division of the ligaments, therefore, accomplishes very little toward effecting a cure. The object of Macewen's operation, for instance, is to bring the articular surface of the condyle more toward the upper end of the femur by producing a fracture above the condyles.

I have seen more relaxed ligaments in connection with hip disease than in any other class of cases. This is due to the frequency with which traction is made upon the leg alone, instead of upon both the leg and thigh. Care should be taken that the adhesive plasters are made sufficiently long to accomplish this.

In the ankle-joint, relaxation of the ligaments is observed in cases of flat-foot or as a result of poliomyelitis.

Dr. R. H. Sayre: I fully agree with the reader of the paper that relaxation of the spinal ligaments very rarely plays any part in the production of lateral curvature. It seems to me that in a certain number of rachitic children relaxation of the ligaments has a very distinct bearing on knock-knee and flat-foot. The most remarkable examples of relaxation of ligaments that I have seen have been those occurring after infantile paralysis. I saw only the other day a case of shoulder-joint paralysis in which the head of the humerus could be moved around in a remarkable manner. I have seen only a few cases of genu recurvatum, but I recall one in which every time the child kicked it struck the foot against the belly. By the use of apparatus for some time an excellent result was secured. I know of no special treatment for restoring the proper tone of relaxed ligaments, although much good can be accomplished by supporting braces. I have seen a number of cases of relaxation of the ligaments at the sternal end of the clavicle. I would like to ask Dr. Gibney what has been his experience with injections of alcohol in such cases.

Dr. Townsend: Several years ago I saw a case of Dr. Stimson's, in which alcohol had been injected into the tissues with the object of relieving a condition of relaxation of the sterno-clavicular ligaments. In this case the result had been good three or four months after the treatment. In one case which I treated in this manner, the result I know to have been permanent one year and a half afterward.

Dr. Gibney: In one case in which I thought I would secure a good result from alcohol injections, the result was most disastrous because of the supuration that occurred. I cannot say that I have any method of treatment for this particular condition, which may be a most distressing one.

Treatment of Uremic Convulsions.—Malbec (*Med. News*, 1895, LXVII, p. 630)

In the treatment of uremic convulsions, the author recommends the removal of 10 or 15 oz. of blood, to be repeated if necessary; inhalations of chloroform until the convulsions are controlled; the administration by enema by a mixture of: Musk, 7½ grn.; chloral, 15 grn.; yolk of one egg.; distilled water, 5 fl. oz.

The administration hourly of a tablespoonful of the following mixture:

Strontium Bromide.....	1 dr ;
Syrup Orange-flower.....	1½ fl. oz.
Distilled Water.....	3 fl. oz.

Restraint of thighs, and legs wrapped in cotton; and an absolute milk diet.

BOOK REVIEWS

Manual of Gynecology.—By Henry T. Byford, M.D., Professor of Gynecology and Clinical Gynecology in the College of Physicians and Surgeons of Chicago; Professor of Clinical Gynecology in the Woman's Medical School of Northwestern University; Professor of Gynecology in the Post-graduate Medical School of Chicago.—488 pp., with 234 illustrations. Phila.: P. Blakiston, Son & Co.; 1895. Price, cloth, \$2.50.

The above is a small systematic textbook on gynecology, embodying the author's didactic lectures on that subject. The work is designed especially for students, and covers the whole field of gynecology exclusive of the major operations.

Instead of presenting the various diseases topographically, as is done in most of the textbooks, he presents the various lesions with their manifestations in the different organs. In this way he expects to retain the students' attention better than by the other method.

The style of the book is clear and concise. Classifications are elaborate, but do not differ essentially from Pozzi and other larger textbooks. While there is nothing new or remarkable in the book, it presents the main features of gynecology in a manner well adapted for the use of medical students.

Relation of Diseases of the Eye to General Diseases.—By Max Knies, M.D., Professor Extraordinary at the University of Freiburg. Edited by Henry D. Noyes, M.D., Professor of Diseases of the Eye and Ear in Bellevue Hospital Medical College, etc.—Pp. x+467. New York: Wm. Wood & Co.; 1895.

This very practical and interesting volume, which should be in the hands of every practicing physician, is divided into nine chapters.

Chapter I treats of the "Diseases of the Nervous System" in an elaborate manner, 244 pages being devoted to its exposition. Twenty-five pages are devoted to the "Anatomical Course of the Nerves of the Eye," the subject being thoroughly discussed from various standpoints. The pages devoted to the production of choked disk in tumors of the brain are exceedingly full, and all the various theories as to its production set forth in clearness and detail.

In multiple sclerosis, the most important ocular symptoms are the nystagmus and twitchings; atrophy of the optic nerve is rare; partial atrophy is more common.

The author says: "Diseases of the spinal cord *per se* give rise to eye symptoms only when the region of the cilio-spinal system is affected directly or indirectly. Other eye symptoms occur only when the disease of the cord extends to the cranial cavity or in case of complications; both are very frequent." Especially interesting are the chapters on "Diseases of the Nervous System," and they will repay careful perusal. Chapter VI is full and very instructive, and should be read by every general practitioner.

Chapter IX, the last, treats of "Constitutional Diseases," and is one of the best in the volume. We notice that although the author quotes very freely from various authors, he evidently has not all the facts before him, as in many instances we note the absence of American writers who have done much in the line of his thought. We cannot too strongly urge the practicing physician to use this work and make it a personal friend. The publishers have

presented it in good form, and in every way it is acceptable.
W. O. M.

The Transactions of the New York Academy of Medicine.—Published by the Academy

This is a collection of a considerable number of papers upon various medical and surgical topics, representing the work done in the Academy proper. A report is also given of the scientific work done in the different sections. Many, if not all, of the articles have been published in the journals.

The volume opens with "A Contribution to Cerebral Surgery," by Drs. McBurney and Starr. This is an extremely interesting and conservative article. Its value, too, is much enhanced by the report of cases not wholly successful—a practice which would greatly benefit the profession if it were followed by other medical authors. A knowledge of others' failures, complete or incomplete, is often as valuable as the knowledge of brilliant successes.

"The Growth of the Academy," the valedictory address of the retiring president, the lamented Loomis, is full of vigor, disclosing his love for the Academy and his pride in its achievements.

A beautifully illustrated paper is a "Report of a Recent Sanitary Inspection of One of the Sources of the Croton Water Supply," by Dr. Cheesman. The illustrations show better than words could tell how our Croton water is polluted with various filthy discharges.

This article is supplemented by "A Report on the Legal Measures To Be Taken to Correct Existing Abuses in the Sanitary Condition of the Croton Water-shed." The general public little appreciates, and perhaps as little knows, the efforts made by the Academy to correct these glaringly unsanitary conditions.

From what we have read and heard in discussions by specialists we might almost believe, although we do not think it so in fact, that they intentionally or almost "with malice aforethought" exaggerate the danger of various procedures in order to scare the general practitioner into sending for the aid of the worker in a single branch. We are again reminded of this on reading the "Discussion on the Application of Symphysiotomy at This Era." Here we find a gynecologist sounding "a note of warning to the general practitioner" lest the operation be resorted to by him when the necessities of the case do not demand it. This specialist indorses the opinion of another that the operation needs "a good obstetrician and a good surgeon." Just how skillful a practitioner must be to be qualified by the adjective "good" we do not know, but we believe, although we frankly confess to never having performed the operation, that a "good" general practitioner is sufficiently skillful to perform the operation of symphysiotomy. We general practitioners stand too much in awe of the specialists; we have made ourselves hero-worshippers, forgetting that the god upon the pedestal is more or less one of our own creation; that his existence is dependent on our goodwill. It is time that the general practitioner asserted himself so that the qualification "good" should oftener apply to his fees, as it invariably does to those of the specialist.

A propos of this we quote a remark made by that very "good" and able general practitioner, Dr. Abraham Jacobi, in the discussion on the "Early Attention to Infantile Paralysis." The doctor says: "I still believe in the general practitioner, and I believe in his future, if he will persist in understanding and treating

cases, and not confine himself to keeping a distributing office in the service of specialists." We do not by any means wish to be understood as denying or even decrying the importance of the specialists. They are a necessity in the medicine of to-day, and coming days, and benefactors to the profession and the public at large. But, to use a homely expression, they should know their place, and not, to put it perhaps too strongly, treat the general practitioner with good-natured condescension.

The anniversary discourse, on "Modern Experimental Medicine," by Dr. Wm. H. Thompson, is a learned article of great scope. The scholarly author, in the true scientific spirit, points out that the etiology of disease cannot be demonstrated beyond doubt, despite trained investigation, with all its modern helps, without one great requisite, namely, experiment. The article goes on to show the reputation made for American medicine by the investigations in the laboratories of our larger medical institutions. In spite of its great advance, however, experimental medicine, as the author truly says, can never be a "substitute for clinical medicine"—the former is the handmaid to the latter, just as the specialist is a part of the armamentarium of the general practitioner.

We have selected articles in these transactions at random, it being manifestly impossible, in a limited space, to mention every one. The few we mention, however, will give an idea of its value and scope. Many of the articles are well illustrated. For a volume containing a mine of information and a wealth of ideas, as do these transactions, we think a better binding and better cover would have been appropriate. These, together with an index, would have made the volume a more valuable addition to a medical library. Even as it is, however, every physician possessing a copy of these transactions can feel assured that he has secured a valuable and scientific work which will well repay a careful reading.

Bibliothek der Gesamten medicinischen Wissenschaften.—*Fuer praktische Aerzte und special Aerzte.*—By Hofrath Professor Dr. A. Drasche, of Vienna, with the collaboration of Profs. Vierordt, Wagner, Stricker, Schauta, Schwenninger, Koenig, Escherich, Boas, etc.—Large 8vo; Nos. 67 to 80 inclusive. Vienna and Leipzig: Karl Proschaska; 1895. Price, per part, 1 mark (35 cents). Complete in about 175 parts, or 8 to 10 volumes.

Numbers 70, 74, 76, and 80 from parts 7 to 11 of "Internal Medicine and Diseases of Children"; Nos. 67, 73, 77, and 78, parts 7 to 11 of "Medical Chemistry"; Nos. 68, 71, and 72, parts 18, 19, and 20 of "Obstetrics and Gynecology"—concluding this part of the work; and No. 79, part 1 of "Diseases of the Eye."

The new volume upon "Diseases of the Eye" opens with an eight-page article upon the relation of ocular affections to the remaining specialties of practical medicine. Then follow comprehensive articles upon accommodation, ankyloblepharon, anophthalmus, asthenopia, and astigmatism, which latter is continued to the next number. The closing numbers of "Obstetrics and Gynecology" contain articles upon forceps operations, turning, obstetrical and gynecological examinations, a very complete exposition, vaginismus, injuries to the fetus, arrested development and malformations, twins and triplets, urethral affections of the female, and the uterus and its anomalies. In Medical Chemistry, among other things, are discussed chemi-

cal constitution and physiological action, chemical diagnosis, concretions, iron, feces, coloring matters, ferments and enzymes, fatty acids, bile, an exhaustive and most valuable article on legal medicine, glucosides. In addition, 65 pages are devoted to examination of the urine. Here the finer details of urinary analysis are treated in a charming and lucid manner. Some of the subjects considered in the section on "Internal Medicine and Pediatrics" are influenza, instruments for diagnostic purposes, intoxication psychoses; infantile paralysis, a lengthy article and well written; diet, climatotherapy, displacements of the heart, abscess, atrophy, cirrhosis, carcinoma and echinococcus of the liver, leucemia, and local symptoms of cerebral affections.

The articles lose none of their vigor as the volumes near completion; indeed, each succeeding one appears to be an improvement upon its predecessor, and all are of the best and fully up to date.

Disorders of the Male Sexual Organs.—By Eugene Fuller, M.D.—Phila.: Lea Bros. & Co.; 1895.

Dr. Fuller has given us a work of considerable value, but we cannot help thinking that the title is somewhat misleading, and that the reader, expecting that a wider field is treated of than really is, will be disappointed, for the work in reality treats of disturbances in the sexual function in the male, and is confined almost exclusively to the seminal vesicles and their disorders, being an amplification of papers already published by him. He has very carefully and convincingly, starting with the gross anatomy of the seminal vesicles, and their close relations with the prostate and the distal extremities of the vasa deferentia, by means of photographic plates of dissections illustrating the text, given a very clear conception of the parts under discussion. Some of the plates, however, unfortunately leave a little too much to the imagination of the reader. At the same time, they show skill in the method of arrangement.

A short chapter is devoted to the histology.

The chapter on the physiology of the seminal vesicles and the mechanism of ejaculation is excellent, and combats some of the old ideas which have long been accepted unchallenged, denying that the ampulla of Henle is in any sense a reservoir for the seminal fluid, or that it takes part in the ejaculatory act; maintaining, on the contrary, that it acts as a pump, emptying its contents, when filled, into the corresponding vesicle, which is the true reservoir; that the ejaculatory duct is directly continuous with the corresponding seminal vesicle.

One chapter is devoted to the pathology and pathological anatomy. Dr. Fuller recognizes three forms—gonorrheal, tubercular, and simple. The gonorrheal, or that following an old gonorrhea, may contain gonococci, may be a mixed infection; or the gonococci may have disappeared, leaving a secondary microbic invasion; or the gonococci may never have penetrated to this part. Further, a tubercular condition may have been ingrafted upon such a condition, or it may start *de novo* tubercular, either primary or secondary to tubercular trouble in other portions of the genito-urinary tract. The changes consist in changes in the walls of the vesicles, or the surrounding tissues, perivesicular, and changes in the consistence of the secretions and contents of the vesicles.

When we come to the chapter on the clinical features, and read the symptoms to which the chronic form of seminal vesiculitis may give rise, well may we rub our eyes at the bewildering variety, and

ask ourselves, Is there nothing left to a chronic urethritis but seminal vesiculitis? The "*goutte militaire*," the relapsing urethritis, the abnormal sensations in the urethra accompanying the act of urination, frequency of urination, reflex radiating pains, cloudy urine, spasmodic stricture of the urethra, may all find their continuance dependent upon an abnormal state of the seminal vesicles. This all, however, is only another way of saying that we cannot expect to treat our patients intelligently unless we are able to inform ourselves as to the state of these organs. Even tinnitus aurium, that bugbear of the aurist, was in one case cured by attention to the seminal vesicles.

For treatment, Fuller advocates strongly his method of stripping the seminal vesicles in all cases which are subacute or chronic except in those cases which are tubercular, and in the last chapter details a number of illustrative cases.

The work is clearly and forcibly written, and well worth a careful perusal.

BOOKS RECEIVED

Myxœdema and the Thyroid Gland.—By John D. Gimlette, M.R.C.S. (England), F.R.C.P. London: J. & A. Churchill; 1895.

A Manual of Syphilis and the Venereal Diseases.—By James Nevins Hyde, A.M., M.D., Professor of Skin and Venereal Diseases, Rush Medical College; and Frank H. Montgomery, M.D., Lecturer on Dermatology and Genito-Urinary Diseases, and Chief Assistant to the Clinic for Skin and Venereal Diseases, Rush Medical College.—Pp. 618, with 44 illustrations in the text, and 8 full-page plates in colors and tints. Philadelphia: W. B. Saunders; 1895. Cloth, \$2.50.

Electrotherapeutical Practice: A Ready-reference Guide for Physicians in the Use of Electricity.—By Charles S. Neiswanger, Ph.G., author of "Suggestions in Electrotherapeutics"; Professor of Electrophysics, Post-graduate Medical School of Chicago.—Pp. 80; illustrated. Chicago: E. H. Colegrove & Co.; 1895.

Pregnancy, Labor, and the Puerperal State.—By Egbert H. Grandin, M.D., Consulting Surgeon to the New York Maternity Hospital; Consulting Gynecologist to the French Hospital, New York, etc.; and George W. Jarman, M.D., Obstetric Surgeon to the New York Maternity Hospital; Gynecologist to the Cancer Hospital, New York, etc.—Forty-one original full-page photographic plates from nature. Royal octavo; pp. viii + 261. Phila.: The E. A. Davis Co.; 1895. Cloth, \$2.50 net.

Anatomy of the Human Head and Neck.—Graphically illustrated and described by means of superimposed plates, with descriptive text by Dr. Schmidt. English edition by William S. Furneaux, author of "Animal Physiology," "The Outdoor World," etc. New York: Thomas Whittaker; 1895.

Elementary Technique in Histology and Bacteriology.—By Ernest B. Hoag, A.B., B.S., Instructor in Zoölogy and Physiology, Throop Polytechnic Institute, Pasadena, Cal.; and H. Kahn, Ph.M. (Mich.), Assistant Demonstrator in Bacteriology, Northwestern University Medical School, Chicago.—Chicago: E. H. Colegrove & Co.; 1895.

The Growth of the Brain: A Study of the Nervous System in Relation to Education.—By Henry Herbert Donaldson, Professor of Neurology in the University of Chicago.—Pp. 374; illustrated. London: Walter Scott, Ltd.; New York: Charles Scribner's Sons; 1895.

Notes on Surgery for Nurses.—By Joseph Bell, M.D., F.R.C.S. (Edin.), Consulting Surgeon to the Royal Infirmary, and Surgeon to the Royal Edinburgh Hospital for Sick Children.—Fourth edition, thoroughly revised; with an additional chapter of General Advice to Nurses. Edinburgh: Oliver & Boyd; 1895.

Practical Uroanalysis and Urinary Diagnosis: A Manual for the Use of Physicians, Surgeons, and Students.—By Charles W. Purdy, M.D. (Queen's University), F.R.C.P.S. (Kingston); Professor of Urology and Urinary Diagnosis at the Chicago Post-graduate Medical School; author of "Bright's Disease and Allied Affections of the Kidneys"; also of "Diabetes: Its Causes, Symptoms, and Treatment."—Second revised edition; with numerous illustrations. In one crown octavo volume; pp. 360. Philadelphia: The F. A. Davis Co.; 1895. Extra cloth, \$2.50 net.

Materia Medica and Therapeutics: A Practical Treatise, with Especial Reference to the Clinical Application of Drugs.—By John V. Shoemaker, A.M., M.D., LL.D., Professor of Materia Medica, Pharmacology, Therapeutics, and Clinical Medicine, and Clinical Professor of Diseases of the Skin, in the Medico-Chirurgical College of Philadelphia; Physician to the Medico-Chirurgical Hospital, Philadelphia, etc., etc.—Third edition, thoroughly revised. Reset with new type and printed from new electrotypes plates. Royal octavo; pp. ix + 1108. Philadelphia: The F. A. Davis Co.; 1895. Extra cloth, \$5.00 net; sheep, \$5.75 net.

Catarrhal Diseases of the Respiratory Passages.—By J. M. G. Carter, M.A., M.D., Sc.D., Ph.D., Professor of Preventive and Clinical Medicine (formerly Professor of Pathology) in the College of Physicians and Surgeons, Chicago. Chicago: E. H. Colegrove & Co.; 1895. Cloth, \$1.00.

COMING PUBLICATIONS

International Medical Annual for 1896.—E. B. Treat, Publisher, New York, has in press for early publication the fourteenth yearly issue of this work. The prospectus of the forthcoming volume gives promise that it will be an eminently useful reference-book. It will contain reports of the progress of medical science at home and abroad, together with a large number of original articles and reviews on subjects with which the several authors are especially associated. Illustrations in black and colors will be consistently used wherever helpful in elucidating the text. The price will remain the same as previous issues, \$2.75.

Doctors' Story Series.—Baily & Fairchild Co., of New York, announce the establishment of the "Doctors' Story Series," to be issued quarterly at \$2.00 a year, 50 cents a number. Each number will consist of a complete work of fiction by medical authors. The publishers state that only such works as are of established value will be reproduced in this popular form. King's "Stories of a Country Doctor" will be issued in January, 1896, to be followed in March by Dr. Phillips's novel "Miskel," and later by a new novel now in preparation by the same author.

Heart Stimulation.—The application of heat over the heart, and application of hot and cold water to the spine in rapid alternation, is a much more effective means of arousing the heart to activity than the administration of alcohol.—*Medical Summary.*

EDITOR'S NOTES

"The Journal of Experimental Medicine"

It is announced that in January, 1896, there will appear the first number of *The Journal of Experimental Medicine*, a periodical devoted to original investigations in physiology, pathology, bacteriology, pharmacology, physiological chemistry, hygiene and medicine. The promoters of the new journal maintain that the time has come when we should have an American journal devoted exclusively to the publication of original work in the experimental medical sciences. "Such a journal," they continue, "is an urgent need of our scientific workers in medicine. It should secure both here and abroad due consideration of work done in this country. It should stimulate scientific investigation and should extend the influence of scientific medicine. The practitioner who wishes to keep abreast of the times will appreciate the value of such a publication."

It will be the aim of *The Journal of Experimental Medicine* to meet the needs which have been described. The journal is to be devoted *exclusively* to the publication of articles containing the results of original work in physiology, bacteriology, pathology, etc., as above enumerated.

That the journal will be of high character and truly representative of scientific medicine in this country is assured by the character of those whose coöperation has been secured.

Dr. William H. Welch is to be the editor of the new journal; and with him will coöperate a board of twelve associate editors as follows: H. P. Bowditch, M.D., R. H. Chittenden, Ph.D., W. H. Howell, M.D., Ph.D., J. George Adami, M.D., F.R.C.S., W. T. Councilman, M.D., T. Mitchell Prudden, M.D., John J. Abel, M.D., Arthur R. Cushny, M.D., H. C. Wood, M.D., R. H. Fitz, M.D., William Osler, M.D., F.R.C.P., and William Pepper, M.D.

The journal will appear in at least four numbers during the year, and doubtless oftener. Whenever sufficient material is ready a number will be issued. It is estimated that a volume of six to seven hundred pages will be published annually, with many plates and diagrams. Papers for publication may be sent to the editor, Dr. William H. Welch, 935 St. Paul street, Baltimore, or to any one of the associate editors in the department to which the paper belongs.

The subscription price will be \$5 per volume. Subscriptions may be sent to the publishers, Messrs. D. Appleton & Co., New York, or to Mr. N. Murray, Johns Hopkins University, Baltimore.

The College and Clinical Record will hereafter be known under the name of *Dunglison's College and Clinical Record: a Monthly Journal of Practical Medicine*.

Annual Election of the Academy of Medicine

The annual meeting of the Academy of Medicine for the election of officers and the presentation of reports was held on January 2. Reports were read from the Board of Trustees, the corresponding secretary, the statistical secretary, and the various committees. The reports of the Committee on Admissions showed that 48 resident and 13 non-resident fellows had been admitted to the Academy in the last year, while the statistical secretary

reported the deaths of 22 fellows. The Library Committee reported that there were more than 33,000 volumes in the library, an increase of about 3000 volumes, most of which had been gifts. Over 600 medical journals in various languages had been subscribed for during the year, and a large number of pamphlets had been added. This committee asked for a \$5000 appropriation for the coming year. It was voted to give them \$4500.

There was no election of president. The officers elected were: Vice-President, Egbert H. Grandin; trustee, Joseph E. Janorin; members of the Committee on Library, Herman L. Collyer and B. Farquhar Curtis; member of Committee on Admissions, Robert A. Murray; delegates to the Medical Society of the State of New York, William S. Gottheil, Reginald H. Sayre, Ralph L. Parsons, and Charles H. Richardson.

ARMY AND NAVY ITEMS

ARMY

Captain Guy L. Edie, assistant surgeon, was granted leave of absence for four months.

Captain William P. Kendall, assistant surgeon, upon the expiration of his present leave of absence, is ordered to proceed to Fort Sam Houston, Texas, for duty.

First Lieutenant John S. Kulp, assistant surgeon, will, upon the expiration of his present leave of absence, be relieved from duty at Fort Spokane, Washington. He will then proceed to Fort Walla Walla, Washington, for duty.

The leave of absence recently granted to Capt. William B. Banister, assistant surgeon, was extended one month.

The leave of absence granted to First Lieutenant James M. Kennedy, assistant surgeon, was extended two months.

Captain Charles E. Woodruff, assistant surgeon, now on leave of absence, was ordered to proceed from Washington, D. C., to Fort Snelling, Minn., and report for temporary duty.

Major Richard S. Vickery, surgeon, was retired from active service Dec. 7, 1895.

Captain Freeman V. Walker, assistant surgeon, was, by direction of the President, wholly retired from the service, Dec. 4, 1895.

The leave of absence on surgeon's certificate of disability granted Major James C. Worthington, surgeon, was extended six months on account of sickness.

NAVY

Passed Assistant Surgeon G. T. Smith was detached from the *Ranger* and ordered to the *Adams*.

Assistant Surgeon M. K. Johnson was ordered to the Naval Laboratory and Department of Instruction, New York.

PAMPHLETS

Prescribe It as You Like It.—This is a neat little pamphlet, setting forth the merits of the Pri-mo ladies' syringe. It is published by the makers, and will be mailed to any physician upon application to E. J. Hussey & Co., 80 John street, New York.

Diphtheria Antitoxin (Aronson's).—Published by Shering & Glatz, 55 Maiden lane, New York.

Creosote Carbonate (Creosotal) and Guaiacol Carbonate.—Published by Shering & Glatz, 55 Maiden lane, New York.

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A MEDICO-LEGAL QUESTION

UNDER "Reports and Views" will be found a letter with the above heading from an esteemed subscriber in El Paso, Tex. We have thought best to refrain from comment until the case cited should be disposed of by the courts. This has probably been accomplished by this time. The case in brief is as follows:

An apparently healthy man was struck upon the head. The blow caused an incised wound. The wound healed by first intention in three days. On the eighth day after the injury he was discharged from the hospital, apparently well. Eighteen days later he developed symptoms of cerebral compression, and died. There were two large abscesses in the right cerebral hemisphere, as well as smaller abscesses elsewhere in the brain and in the lungs. There were no signs of disease of the scalp, skull bones, nose, or ear at the autopsy.

The question asked is whether the abscesses were due to the blow upon the head, in which case the person or persons who struck the blow must be held for murder.

The question is a particularly interesting one. In the first place we may premise by saying that the abscesses in the brain could readily be directly due to the blow, even though the scalp wound had healed and there was no bone lesion. There are many cases of the kind on record. A somewhat similar case is recorded by PETERSON in his article in "Abscess of the Brain" in LOUIS STARR'S "American Textbook of Diseases of Children." The patient, a young man of 20 years, in perfect health, was struck on the forehead with a snuffbox. The scalp wound was slight and quickly healed. On the thirteenth day cerebral symptoms developed, and he died on the sixteenth day. An abscess in a hemisphere was found at the autopsy. There was

no connection apparent between the abscess and the wound. In this case, however, there was some necrosis of bone beneath the cicatrix.

The complication in the case of Dr. WHITE is the presence of the abscesses in the lungs. Were it not for these, the relation of the brain abscess to the blow on the head would be clear. Now, it is not uncommon for brain abscess to be metastatic in character, and to have its origin in metastasis from pulmonary gangrene or pulmonary abscess. It is a fact, too, that cerebral abscess from distant causes is usually multiple as in such cases. Hence, there may have been here a pulmonary disease in the first instance, giving rise as a mere coincidence to the abscesses in the brain about the time of the injury to the head described.

The real question to be decided here is whether the abscesses in the lungs were due to the abscesses in the brain, the contagium being carried thither by metastasis, or to a general septicemic condition as a result of the blow, or whether they had existed before.

While literature is replete with cases of brain abscess due to lung disease and with cases of cerebral and pulmonary abscess due to a general septic condition, we fail to find cited among the best authorities examples of pulmonary abscess consequent upon traumatic cerebral abscess. Under the circumstances, while very likely both the pulmonary and cerebral abscesses were due to the blow upon the head in the opinion of the writer, still there is no absolute certainty of this being the case. It is a purely theoretical assumption on our part. We do not know what the verdict has been in this particular case laid before us by our Texas correspondent, but we may say that no just verdict could under these circumstances be made against the defendants in an action for murder.

PSYCHIATRY IN THE FAR WEST

IN an address before the Missouri Valley Medical Association, the Superintendent of the State Hospital for the Insane at Norfolk, Nebraska, says: "In securing control of the Norfolk Hospital the homeopaths of Nebraska have received their first recognition from the State. Let us realize that in the Missouri Valley, in this mighty Western empire, our feet are on our native heath and we are homeopaths."

We would take this opportunity to congratulate the State upon having secured the services of an alienist whose brilliant ideas crystallize themselves in the most forcible words which our vocabulary possesses. What a field of usefulness is before him, what opportunities are his. Anthropology, psychiatry, and kindred sciences must soon feel the influence of this new worker, and push more rapidly onward toward the goal of perfection. One can easily picture the chagrin of the Seer of Turin when he learns of the wealth of material now in the hands of his Nebraska contemporary. For the superintendent tells us that "two-thirds of all the patients in the Norfolk Hospital are scrubs, and frequently the runts of scrub families—driftwood, biped animal toadstools; flat-chested, thin-legged, lop-shouldered, sway-backed, hump-shouldered, knock-kneed, bow-legged, loose-jointed, slab-sided, mud-molded, squint-eyed, monkey-headed assortment of nondescript anthropoid allies, without energy, ambition, or prospect."

The condition of these unfortunates would seem discouraging to those of us not especially skilled in the treatment of diseases of the brain. But the resources of the Nebraska school of homeopathic psychiatry are not so easily exhausted. Its exponent says: "It would be interesting to try the results of scorching the soles of the feet, or of administering corporeal punishment or blood-letting, fright and shock, in some of the chronic cases of insanity and confirmed melancholia and mania. I am of the candid belief that such treatment would result in good to the patient."

The doctor's ideas on the question of ultimate reward and punishment are somewhat hazy. Pursuant to that subject he declaims: "Who knows that the spirit of man goes upward and that of the beast downward? None comes back from the shadows to tell us aught. Ah! how often have we looked up into those skies to pierce the inscrutable riddle of man's destiny! And who of all these flingers of stones, who of all these self-constituted sentinels who cry unto men from their so-called watch-towers of Zion, 'Repent!

repent!' can tell us aught that our own hearts have not already felt and our minds comprehended?"

We trust that the uncertainty of this question will not hamper the zeal of the superintendent of the Nebraska asylum, nor clog the progress of his work. Let him push boldly onward, unmindful whether or no there is a reward awaiting him in Zion, content with the thought of the gratitude of Science, when he answers her question, "What hast thou done with thy talent?"

ORIGINAL CONTRIBUTIONS

THE SURGICAL TREATMENT OF UTERINE DISPLACEMENTS

AUGUSTIN H. GOELET, M.D.

Professor of Gynecology in the New York School of Clinical Medicine

UTERINE displacements, especially flexions and retrodeviations from the normal position, demand more careful consideration than is usually accorded them, despite the opinion sometimes expressed that in themselves they do not give rise to sufficient inconvenience to warrant vigorous measures for their rectification. That some displacements of the uterus may not require surgical intervention for their relief is quite true, but on the other hand it is frequently necessary before a cure can be effected. It will be admitted that uterine displacements are seldom, if ever, cured by ordinary methods of treatment, and that the routine plan of inserting a pessary and dismissing the case from further consideration, or making no further attempt if it fails of its purpose, is an error, unfortunately, too often committed. The pessary must be regarded only in the nature of a splint or artificial support, often very essential as an aid in bringing about the desired result, but, unaided, it is capable of accomplishing very little. Improperly used it will of course do more harm than good.

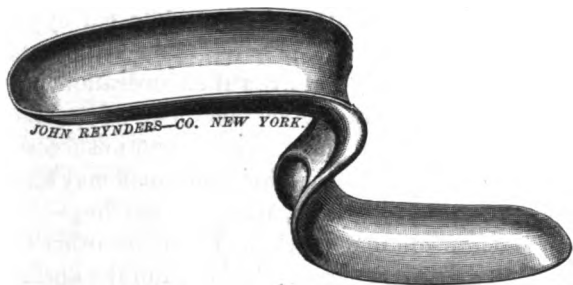
It may be stated in a general way that recent displacements where structural changes in the organ have not occurred, if readily replaced and retained in position by a pessary, will not always require surgical treatment. But flexions of the uterus and versions of long standing where there is an associated metritis either in the stage of subinvolution or sclerosis, will certainly require surgical measures for their cure.

For the sake of convenience in detailing the technique to be adopted with this latter class of displacements, versions and flexions will be dealt with separately.

The retroverted or anteverted uterus in the stage of chronic metritis demands thorough curettage and the gauze tamponade for depletion and stimulation of the impaired muscular walls of the organ and cure of the associated endometritis. Certain details are

important in their execution, in order that the best result may be secured. The curettage should be carefully and thoroughly done under an anesthetic, and the patient should be confined to bed for a week or ten days thereafter.

Technique of Curettement.—The pudenda must be shaved and the parts otherwise aseptically prepared for the operation, previous to the administration of the anesthetic. The patient is placed upon the back, a hard rubber speculum is inserted, and



VAGINAL SPECULUM

the cervix is seized with the double angular tenaculum, which is held in the left hand.

The necessary degree of dilatation can best be secured by the steel dilator, but it should be accomplished gradually, and extreme care is sometimes necessary to avoid serious injury. Perforation of the uterus has occurred with this instrument in careless hands, when too much force has been used and the dilatation has been done too rapidly. Before inserting the curette the cavity is irrigated to remove all mucus. A medium-sized dull curette is first used, carefully going over the anterior, posterior, and lateral walls of the cavity; then a smaller sized dull curette is used to remove hypertrophied mucous membrane or granulation about the entrance of the tubes in the cornua. Next a sharp curette is employed to remove the indurated tissue at the internal os. The cavity is again irrigated with a hot lysol solution ($\frac{1}{2}$ to 1 per cent.) before the gauze is inserted. This removes all debris and checks the bleeding. Iodoform gauze is then packed into the cavity with the long applicator forceps, filling the entire cavity and the canal of the cervix, allowing the end to protrude into the vagina, which in turn is also packed



TENACULUM FORCEPS

loosely with the same gauze in such manner as to retain the uterus in a normal position.

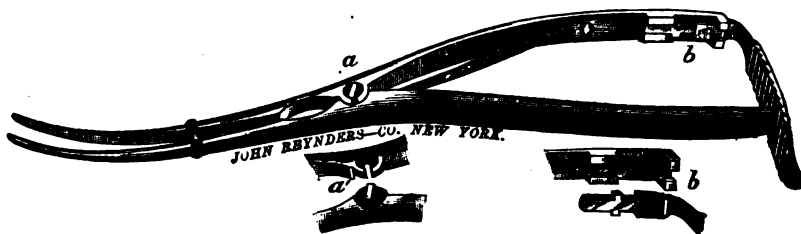
No especial care is necessary in the preparation of the gauze except that its absolute sterility must be assured by submitting it to the necessary degree of heat for a sufficient length of time.

There will be no rise of temperature following this operation if absolute cleanliness has been pre-

served throughout its execution, and if the gauze is removed every day, and the cavity of the uterus irrigated before it is replaced. This part of the after-treatment is particularly important, in order to prevent the accumulation of secretion, blood-clots, and mucus above the gauze in the uterine cavity, which, if retained, would provoke irritation or, backing up into the tubes, cause serious trouble. Gauze thus applied to the uterine cavity will not act as a drain after 24 hours or after that in the vagina has become saturated; and drainage after this operation is an all-important item in these cases, especially if there is any tubal or ovarian complication, as is frequently the case.

About the fourth or fifth day, if the condition will permit it, a pessary, carefully adjusted, may be inserted to retain the uterus in a natural position, and the gauze packing should be continued. At the end of a week the packing may be discontinued, and the patient may be permitted to get up on the following day.

The subsequent treatment will consist in maintaining the uterus in a normal position, and frequent irrigation of the cavity until a healthy condition of the mucous membrane has been reproduced. From twice to three times a week for two or three weeks



UTERINE DILATOR

will usually suffice. Such measures as will tend to strengthen the uterine supports should likewise be employed.

Neglect of proper attention to these details, and especially the after-treatment of these cases, will account for the failures which are so frequent after this operation, necessitating its repetition. If properly executed, and the after-treatment, as outlined above, is faithfully followed up, this operation can be relied upon to cure any case of anteversion or retroversion uncomplicated by tubal disease or if the uterus is not fixed by adhesions. When fixed posteriorly by adhesions it may be necessary to open the abdomen, break them up, and suspend the uterus from the anterior abdominal wall. But this part of the subject will be gone into more fully in a subsequent article.

With anteversion and retroflexion a different plan is necessary. Dilatation and curettage will be necessary in these cases also, except when the displacement is recent, but in the after-treatment, instead of the gauze packing, it is necessary to employ a splint in the form of a drainage stem placed in the uterine canal until the circulation and nutrition of the organ have been so changed as to permit it to be readily retained in position by means of a properly fitting pessary in the vagina.

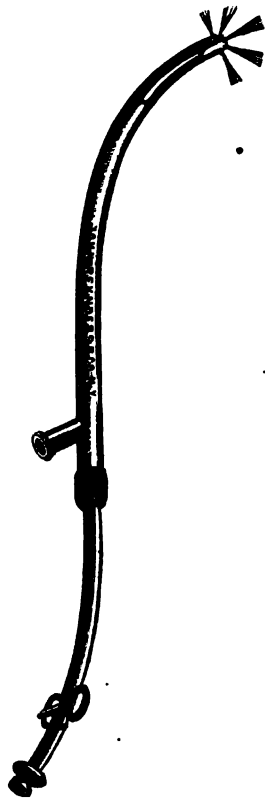
This uterine splint or drainage tube is rarely required longer than a week, and during this time the patient should be confined to bed in the horizontal position. It should be removed every day, and the cavity must be irrigated before it is replaced.



GLASS UTERINE DRAINAGE STEM

This drainage tube is made of glass, which may be readily sterilized by boiling. It is straight, and only 2 ins. long, consequently the upper end is always free and does not rest against the fundus; and it terminates at the lower end in a cup-shaped shoulder in which the cervix rests. It is retained in position by iodoform gauze, which is inserted into the vagina in such manner as to retain the uterus in a position contrary to the displacement it is intended to overcome. For instance, if the case be one of retroflexion, the uterus is thrown into anteversion, and held in this position by the gauze placed in the vagina. If it be an anteversion, the uterus is braced in an upright position. The gauze, likewise, promotes drainage through the stem by capillary attraction.

The fifth or sixth day following the operation a pessary to correct the displacement is carefully adjusted to take the place of the gauze in the vagina as a brace or support, but a small quantity of the gauze is placed under the end of the stem in the vagina to keep it from slipping out, and to maintain drainage. This vaginal pessary is to be used for the



UTERINE IRRIGATOR



UTERINE APPLICATOR FORCEPS

last two or three days that the patient remains in bed with the stem still in the uterus; but when she is permitted to get up the stem is removed, and the vaginal pessary is the only support employed. The case must be carefully watched for several weeks to be certain that the pessary is affording sufficient support and that the uterus is being retained in correct position. The uterine cavity should be irrigated from time to time until the endometrium has become healthy. Remedies which tend to strengthen the uterine supports may be employed with advantage in the after-treatment of all these forms of displacements.

The treatment of retrodisplacements fixed by adhesions and prolapsus uteri will form the basis of a subsequent paper.

NEW YORK; 351 West Fifty-seventh street.

THE STACKE OPERATION FOR THE CURE OF CHRONIC OTORRHEA *

By W. H. BATES, M.D.

Assistant Surgeon, New York Eye Infirmary

IT is well to say in the beginning that the cure of chronic suppuration of the middle ear by operation is indicated only in those cases where necrosis is evident; and even then operation should not be advised until other methods of treatment after thorough trial have been found unsuccessful. During an acute exacerbation symptoms may arise—temperature, prostration, pain, or swelling—which demand immediate operation. There are other cases in which the hearing gradually fails, and the operation should be done to afford relief. With very few exceptions a purulent discharge which persists after the removal of the ossicles and membrana will require operation. In general an otorrhea which has persisted more than a year in spite of treatment will require operation before the discharge ceases. The STACKE operation was proposed in 1891. Its great advantage is that it is thorough. It is safe. Prof. SCHWARTZE, of Halle, has reported 100 operations (textbook). HOLMES has written a most excellent description of it with a report of 12 cases (*Archives of Otolaryngology*, 1893, No. 4). W. VULPIUS has reported two cases (*Medical Record*, XLV, p. 748). There are others who have done the operation, and I have heard none condemn it.

The Operation.—The anesthetic used in all the cases was ether. The instruments used were those employed for mastoid operations, and included: forehead mirror, scalpel, hemostatic forceps, two retractors, mallet, chisels, gouge, curette, strabismus hook for insertion into the aditus as a guide, probes, bone-forceps, needles, silk, eye-dropper, and scissors. The knives of STACKE for dissecting out the membranous canal were not used. The instruments were sterilized. Antiseptic solutions were not employed. A good light was necessary. The light from an Argand burner was better than daylight and as good as the electric light. The field of operation was cleansed. The patient's head was not shaved. The ear was not syringed.

An incision was made over the mastoid, close to the insertion of the auricle, and extending from its upper margin to the tip of the mastoid. The tissues were divided down to the bone, and the auricle dissected from it as far forward as the canal. The membranous canal was cut across at its attachment to the bone. The bleeding was controlled by artery forceps, by pressure, and by hot water. The sponging was done with moist cotton and iodo-

* Read before the Section of Ophthalmology and Otolaryngology of the New York Academy of Medicine, Dec. 16, 1895.

form gauze. The auricle was drawn forward with a blunt retractor. The posterior edge of the wound was not disturbed unless it was found necessary to remove the bone under it in the later stages of the operation. The posterior wall of the canal was removed by the chisel as far inward as the plane of the posterior insertion of the membrana tympani. When the membrana was absent a bent probe or strabismus hook inserted in the aditus was used as a guide, and indicated with sufficient accuracy the depth inward that the posterior wall of the canal could be chiseled without injury to the facial nerve.

SCHWARTZE has modified the STACKE operation by opening the antrum before removing the posterior wall of the canal. This method may be preferable in cases where the antrum is superficial or easily reached. In general it is better to remove the posterior wall first, because more room is obtained to chisel in the depths of the bone, since the space occupied by the canal becomes available in manipulating the chisel. A smaller opening externally is necessary, and the lateral sinus is less apt to be encountered.

There are no landmarks to aid one in avoiding the sinus in all cases, and it is well to chisel the bone with the feeling that the sinus may be exposed at any moment. The sinus may be as close as 4 mm. (HOLMES) to the canal. The chisel should be directed obliquely inward and forward when removing bone in the neighborhood of the sinus. Exposing the sinus does not delay the operation. When the sinus is wounded, the hemorrhage should be checked by iodoform gauze packing and the operation postponed. The sinus has been opened by gentle probing in cases where the dura was necrosed. I opened the sinus in one case at the dispensary while carefully probing. The wound was packed with iodoform gauze, the patient went home, and no ill effects ever followed. KNAPP, SCHWARTZE, POLITZER, and others have reported cases with very few fatalities.

The *aditus ad antrum* is an opening in the posterior superior wall of the tympanum. A thorough knowledge of its location and relations is very necessary, and no pictures or description can make us understand it like a study of it in the bone itself. The operation is unsuccessful unless the aditus is reached. With the antrum it is always diseased in chronic suppuration of the tympanum (POLITZER). It connects the tympanum and attic with the antrum. The facial canal and the promontory of the semicircular canal of the internal ear lie very superficially in its inner wall. Its outer wall is generally at the same depth inward as the membrana. The first objects of the chiseling should be to remove the bone external to it, and to reach it by the shortest route. There is less risk to the sinus if we open up the aditus first instead of the antrum. A bent probe can usually be inserted into the aditus from the canal, and should always be done when possible early in the operation as a guide. Sometimes the aditus is occluded by bone or by necrotic tissue.

After the outer wall of the aditus is removed the promontory of the semicircular canal is usually seen; the facial canal is not so readily made out, the ridge it forms being much narrower. The antrum is now opened without difficulty when present. When the antrum is small or absent, the facts are soon known with certainty if one follows STACK'S method of operating.

The facial nerve should be avoided. It should be emphasized that this requires great care. SCHWARTZE, whose knowledge of the anatomy of the mastoid makes him an authority and whose experience in mastoid operations is very large indeed, reports six cases of transitory facial paralysis after the STACKE operation in his earlier cases; later none. I had three cases, and in all, the eye on the operated side had to be bandaged for a time to prevent ulceration of the cornea from exposure. The facial canal is located close to the posterior wall of the tympanum and curves upward and forward, skirting its superior margin. The promontory of the semicircular canal is behind and above it. It lies 15 mm. inward from the *spina supra meatum* (HOLMES).

During the operation, the facial canal should be located by its relations to the membrana tympani and aditus rather than by measuring 15 mm. from the spina, because the measurements of the bone are variable and the spina is at times absent. While chiseling in the depths of the bone to remove the outer wall of the aditus and attic, great care is necessary to prevent the chisel from slipping and wounding the facial nerve. The outer wall of the facial canal in the attic and aditus is very thin, and some cases have no bony covering at all. This should be remembered also when curetting over the facial canal. A ridge of bone made by the operation, which lodges the facial nerve, is difficult to describe. It consists of the inferior wall of the aditus or the lower posterior wall of the tympanum, as far outward as the insertion of the membrana. It prevents a free communication with the antrum and tympanum, and the temptation is strong to chisel it away. The facial nerve may be injured by splintering the bone in this neighborhood.

The outer wall of the attic is removed. The tympanum is cleared by removing the remnants of the membrana malleus and incus, leaving the stapes, and the bone curetted until it is smooth. Of acute cases in which it is advisable to leave the membrana tympani and ossicles, I have no experience to report. The superior wall of the attic, aditus, and antrum, and the inferior wall of the tympanum may be as thin as writing-paper. The anterior wall of the tympanum is also thin and may be absent (FRIEDLOWSKY, ZUCKERKANDL, MÜLLER, HESSLER). These anatomical facts emphasize the necessity of proper care in using the curette.

The success of the operation depends upon the thoroughness with which the necrotic tissue is removed. Bony sinuses should be searched for with a fine probe and obliterated with the chisel. It may be necessary to remove more of the outer table of

the mastoid. After the chiseling is completed, the canal, antrum, attic, aditus, and tympanum are converted into one cavity, irregular, wider externally with no overhanging bone, no blind pouches or fistulæ, no periosteum or connective tissue covering the bone. The roof of the tympanum and antrum should be examined carefully for necrosis, since pus reaches the brain most frequently by this route, the bone being usually very thin.

When the operation is finished, the detritus is removed from the cavity. This is not always a simple matter. The bony fragments have sharp points and cling to the walls of the cavity. The healing process in two of my cases at least was prolonged by the presence of such fragments which later came away. The cavity was not packed in my later cases. No attempt was made to cover the denuded bone by flaps from the membranous canal as suggested by STACKE because, it was found impossible to apply the flaps to the underlying bone. The wound behind the auricle was closed by interrupted silk sutures, even in cases where the outer table of the mastoid was removed down to the apex. Over the line of the sutures was applied powdered iodoform and a contractile collodion cotton dressing. A small piece of cotton was placed in the meatus. The ear was covered with a large bunch of cotton, which was held in place by a bandage. For several hours after the operation there was bleeding from the meatus and through the incision behind the auricle, which saturated the dressing, but was never alarming. The next day the blood had become dry.

After-treatment.—The bandage was removed the day after the operation and was not reapplied. The patients were confined to bed for several days. All had some temperature, which was seldom higher than 100°. The collodion dressing and sutures were not removed until after four days. In several cases the sutures were removed two weeks later. In five cases balsam of peru was instilled into the canal a number of times daily. This seemed to prevent infection. The discharge from the ear was watery and soon became small in amount. In those cases not treated with balsam of peru, the discharge became purulent and the healing process was delayed. Syringing or swabbing out the canal always increased the discharge and retarded cicatrization.

Those cases which were cured by the operation required no care except to prevent infection. This seemed to be accomplished by the balsam of peru, which could be used by the nurse. In those cases which were not treated to prevent infection, the serous discharge became purulent in about a week. The after-treatment became the usual treatment for chronic suppuration of the middle ear, with the great advantage now that there was good drainage and the diseased bone could be reached.

Report of Cases.—There were 10 patients, six females and four males, whose ages ranged from eight years to forty. All were chronic cases, and each had been under treatment for more than a year before the operation. Five operations were

done at the Northeastern Dispensary, the patients going home after partial recovery from the ether. One case was operated at the New York Eye Infirmary, the others at their homes. The results were as follows:

1. The discharge ceased in one case in three weeks; the longest in seven months. One case died 10 days after the operation, and one is still under treatment. In eight cases the otorrhea was cured. Should there be recurrence in any of the cases, the diseased bone can now be easily reached and recovery certain in a short time. Cholesteatomatous masses may develop, but they can be as readily removed as cerumen.

2. The hearing was not improved in a single case by the operation. In one case it was decidedly lowered. We would make a distinction between the operation and the after-treatment. The hearing was improved by the after-treatment in a number of the cases.

3. Facial paralysis occurred in three cases from preventable causes; all improved. Contrary to the usual experience, the function of the chorda tympani was preserved in at least one case.

4. Primary union occurred in eight cases—all but two. Failure was due in one case to packing the cavity with gauze through the canal, which prevented the wound from being drawn together properly. The second failure occurred in a boy, who fell out of bed and struck the operated ear in such a way as to tear out all the sutures.

Case I.—Mrs. S., aged 38, has had a discharge from both ears since childhood. Right, watch = $\frac{1}{4}$ "; left, watch = $\frac{3}{4}$ ". There was no tinnitus.

Dec. 9, 1893.—Operation on the right ear with the assistance of Drs. MCAULIFFE, KELLY, and BIESER. The posterior wall of the canal, with considerable bone behind it, was removed down to the level of the inner wall of the tympanum. The chiseling was too deep inward, as the facial nerve was injured. The outer wall of the attic was removed. The mastoid was very hard. No cells were found. The antrum was not reached. The curette was used freely. The remnants of the drum membrane and ossicles were removed. The incision behind the auricle was closed with interrupted silk sutures. The chiseled cavity and external auditory canal were packed with iodoform gauze. Over all was placed a bandage. The next day the bandage was changed. The sutures did not hold the parts in apposition and were removed. The ear was lightly packed with iodoform gauze through the mastoid opening. Granulations sprang up rapidly, but were never profuse. Paralysis of the facial, almost complete, showed itself the day after the operation. The patient was unable to close her right eye at all. For the paralysis strychnine sulphate, grn. $\frac{1}{30}$, *t.i.d.*, was ordered. Feb. 1, 1894, the mastoid opening had closed and the discharge from the canal had ceased. The walls of the cavity formed by the operation were covered by a smooth cicatricial lining. The hearing was no

better. The facial paralysis was better. More than a year later the discharge had not returned. The facial paralysis was very much better, but it was still noticeable. The hearing was R.W. = $\frac{1}{8}$ ", L.W. = $\frac{3}{8}$ ". The hearing of the right ear was improved by removing layers of the cicatricial membrane in the neighborhood of the oval window by chromic acid and curetting. The left ear had not changed.

Case II.—Miss L., aged 12, was seen in December, 1892. She has had a purulent discharge from her right ear for ten years. At times the discharge nearly ceased. She was operated upon for mastoid abscess nine years ago. There is a depression of bone about a quarter of an inch deep behind the auricle. The patient was treated by the usual remedies locally for nearly a year without much benefit. Oct. 16, 1893, under ether, the remnants of the drum membrane and ossicles were removed. The discharge was less for a time. The hearing of the right ear was $\frac{1}{8}$ ", the left ear had normal hearing. The patient was operated upon later for the removal of adenoids in the vault of the pharynx, with the object of improving the condition of the ear. No benefit to the ear resulted.

May 8, 1894.—Operation under ether (at the Northeastern Dispensary)—An incision was made through the skin one-quarter of an inch behind the insertion of the left auricle and about two inches long. The auricle was dissected from the bone as far forward as the external auditory canal, and the cartilage of the canal cut across. The periosteum over the mastoid was pushed to one side. A piece of the outer table of the mastoid, about one-half inch square, directly behind the canal, was removed. The posterior wall of the canal was removed down to the level of the insertion of the drum membrane. The cavity was curetted. The incision through the skin was closed by interrupted silk sutures. Over the line of the sutures was dusted iodoform powder, and then contractile collodion and cotton applied. The external auditory canal was lightly packed with iodoform gauze. Over all, cotton and a bandage were applied. Two days later the bandage and gauze in the canal were removed. The patient wore a small piece of cotton in the meatus. Two weeks later the collodion dressing was removed. There was primary union along the line of the sutures. The sutures were removed. The ear was discharging freely. At first the discharge was clear and watery. Later it became purulent. Treatment of the ear was continued regularly two or three times weekly for almost a year. The discharge continued. As the previous operations had not reached the attic or the mastoid antrum, it was determined to operate again and more thoroughly. The hearing had declined to R. W. = $\frac{2}{8}$ ".

April 24, 1895.—Operation under ether, at the patient's home. Dr. OTTO assisted. The incision was made through the scar of the previous operation. Connective tissue had nearly replaced the bone removed and was excised. The outer wall of the at-

tic was chiseled away. With a bent probe in the *aditus ad antrum* as a guide, the bone was removed, exposing the cavity of the antrum. A number of fistulae were also chiseled. It was readily seen and understood why the previous operations had failed to cure the discharge. The lateral sinus was accidentally exposed, but not wounded. It was located unusually close to the external auditory canal. The effect of the chiseling was to convert the tympanum attic and mastoid antrum into one cavity with smooth concave walls. The ear was dressed as in the previous operation. Two weeks later the collodion dressing was removed. There was primary union along the line of the sutures. The sutures were removed.

The after-treatment was different in this particular: The external auditory canal was lightly packed with iodoform gauze daily, and balsam of peru instilled into the ear. The ear was not syringed. The discharge was slight and never became purulent. In three weeks the discharge ceased. The bony canal was covered by a smooth, light-colored cicatrix.

The hearing was not improved. Oct. 8, five months later, there is no discharge. The patient has a new drum membrane. Her hearing is R. W. = $\frac{6}{8}$ "(?). Bone conduction with HARTMANN's forks is better than air conduction, and is the same as the bone conduction of the left ear. Her poor hearing may be due to the cicatricial tissue covering the inner wall of the tympanum.

Case III.—Miss T., aged 31, has had a purulent discharge from her right ear for more than twenty years. She was treated without receiving any benefit. The discharge was less at times. The right ear heard the watch on pressure(?). Bone conduction with HARTMANN's tuning-forks was better than air conduction except with C₄, which was uncertain. The bone conduction of the right ear was better than the bone conduction of the left ear. The left ear seemed normal. Conversation was not heard well on the right side.

June 7, 1894.—Operation under ether, Dr. OTTO assisting. The mastoid was sclerosed and the antrum was small. June 11, four days later, the dressings were removed. Along the line of the sutures there was primary union. The sutures were removed. The iodoform-gauze packing in the canal was changed. A bandage was worn a few days, and then left off altogether. The discharge from the ear was watery and never became purulent. At the end of a month the discharge was so slight that the patient did not even insert cotton in her ear. Cicatrization was slow and there were granulations in the middle ear six months after the operation.

April 15, 1895, the patient has had no discharge for several months. Her hearing for conversation is decidedly better. She can hear conversation on her right side better than she could before the operation. The hearing of the right ear is better for certain sounds. The wound over the mastoid has healed without a noticeable scar.

Dec. 12, 1895.—The operated ear contains a small amount of mucus. About every three or four

months the patient has had this mucus in the ear, which comes away on the cotton swab. The ear does not discharge pus. The hearing was not improved. The patient says that her ear and head feel better now than before the operation.

Case IV.—Mr. P., aged 40, was examined March 28, 1894. His left ear has had a discharge of offensive matter for more than thirty years. There is a large perforation of the drum membrane occupying all that portion above the folds. The ossicles do not seem to be present, the handle of the malleus alone remaining. Hears the watch $\frac{1}{4}$ ft. Bone conduction is increased for HARTMANN's tuning-forks C, C₁, C₂, C₃, C₄, while air conduction is diminished. He has occasional tinnitus. He has attacks of pain radiating from the left ear with vertigo. The right ear appears normal. He has been under treatment at different times without obtaining much benefit. I treated him for two months by local applications of chromic acid, peroxide of hydrogen, nitrate of silver, and other remedies, without doing him any good.

June 16.—Operation at the Northeastern Dispensary, with the assistance of Drs. SCHOONOVER, OTTO, BIESER, and WATKINS. The mastoid was sclerosed and the antrum small. A number of bony fistulae were obliterated. A portion of the malleus and membrane were not disturbed. The canal was lightly packed with iodoform gauze.

Four days after the operation the dressings were removed. There was primary union along the line of the sutures, and the sutures were removed. The discharge from the canal was watery. In a few weeks it was inappreciable. The after-treatment consisted of syringing with warm water and in the use of astringents.

April 15, 1895.—The ear has been dry for more than three months; the hearing for the watch has improved to more than twelve inches. Tested with HARTMANN's forks C₂, C₃, C₄, air conduction is now better than bone conduction. The patient is very well satisfied. He has no longer attacks of vertigo and local pain. He has a cicatricial membrane over the tympanum.

Case V.—Miss M., aged 22, has had a purulent discharge from her left ear for more than ten years. The hearing is left watch, $\frac{1}{4}$ ft. The membrana and ossicles are absent. The right ear seems normal.

June 30, 1894.—Operation at the Northeastern Dispensary with the assistance of Drs. SCHOONOVER, OTTO, and MOONEY. The patient did not recover complete consciousness for several days after the operation. She suffered from hysteria, which was relieved by two doses of valerian. Complete paralysis of the left facial was noted on the third day. Twelve days after the operation the sutures were removed. There was primary union. The discharge from the ear became decidedly purulent in 10 days. The patient was in bed two weeks. The after-treatment consisted of syringing with hot water and in the application of astringents to the granulations. The discharge grew less and the ear was dry six months after the operation.

Jan. 17, 1895.—The right ear is discharging pus. The left ear is perfectly dry. The hearing is reduced in both ears: Right watch= $\frac{1}{4}$ ft.; left watch, on pressure. The patient's general health is bad. The facial paralysis is much better. She disappeared from observation.

Oct. 29, the patient had a cicatricial membrane covering the tympanum. The discharge had not returned in over a year. The facial paralysis was much better. The hearing of the operated ear was unchanged, but that of the right ear was less, $\frac{1}{4}$ ft.

Case VI.—Mr. B., aged 24, was seen in the morning of Sept. 28, 1894. He had been in bed a number of days with intense pain and great tenderness over the left mastoid and down the left side of the neck to the clavicle. The ear was not discharging. Temperature was 100° and his pulse was 80. Ice was applied to the left mastoid. In the evening the prostration was no better and the pain continued. He was given morphine to allay the pain. An operation was advised. A doubtful prognosis was given.

Sept. 29, operation under ether (with the assistance of Dr. OTTO). Twelve hours later, temperature 100°. He felt so much better that he was able to walk up-stairs to another room without assistance.

Oct. 2, at 12 m.—Temperature 102°, pulse 130. He suffered from very severe frontal headache. The ear feels all right. Ordered quinine. At 8 p.m.—He has taken 20 grn. of quinine since noon, besides 60 grn. of phenacetin. Temperature 98.5°, pulse 80. Supraorbital nerves tender on pressure. His headache seemed to be due to malaria. Dr. OTTO, who saw the patient in consultation, concurred in this belief.

Oct. 4, the collodion dressing was removed from behind the auricle. Along the line of the sutures there was primary union. The sutures were removed. The ear had been discharging a watery fluid from the external auditory canal. The canal was not packed after the second day. The patient's temperature is 100.5°.

Oct. 8.—Up to this date the patient's condition in general had improved. The headache was slight and usually absent. His appetite was good. He slept well. The ear did not pain. The discharge, however, had become purulent and flowed freely from his ear. On this day he was attacked with sudden severe headache and great prostration, which continued without any abatement. The ear discharged freely. He became completely prostrated and unable to take nourishment. Large doses of morphine had very little effect on the pain. There were no focal symptoms. The next day Dr. E. B. DENCH saw the patient in consultation. There was free drainage of pus from the external auditory canal. His temperature was 98°, pulse 75, at 10 p.m. Six hours later the patient was dead. An autopsy was refused.

(At the discussion of this paper, Dr. H. KNAPP stated that the patient died of purulent meningitis, basing his diagnosis on the general headache and

tenderness over the jugular vein and mastoid. If the lateral sinus had been exposed at the operation and the cranial cavity also opened and explored for pus, the patient's life might have been saved.)

Case VII.—B. L., aged eight, has had a discharge from his right ear since he was five months old. At times the discharge was less. He has had measles, scarlet fever, and diphtheria, during which times the discharge from his ear became more profuse. On Oct. 20, 1894, the external auditory canal was filled with polypi. Bone conduction with HARTMANN's five forks seemed better than air conduction. It was impossible to determine how much hearing he had with his diseased ear. The left ear was normal.

Oct. 24, operation was performed under ether, Drs. OTTO and ANDERSON assisting. Half an hour later, the patient, while trying to vomit, and not having fully recovered from the effects of the ether, fell out of bed, striking the operated ear and bruising that side of his face. Since the operation there had been a watery discharge from beneath the collodion, as well as from the external canal.

Five days later, the dressings were removed. All the sutures had pulled through. The wound looked healthy. Granulations had started. Iodoform gauze was loosely packed in the external auditory canal and in the wound over the mastoid. The dressings were changed about twice a week. The ear was not syringed.

Two weeks after the operation the wound behind the ear had closed. Balsam of peru was instilled into the external auditory canal once a week. The discharge became offensive. The patient was seen the same day. The ear was wiped out with dry cotton, and the usual dressing of balsam of peru and iodoform gauze was used. The ear was dressed three times a week, and the odor to the discharge ceased permanently. The discharge stopped entirely in less than three months after the operation. Oct. 20, 1895, 12 months after the operation, there was no discharge. The hearing was not restored. There was a collection of dry material in the canal which was not annoying or offensive.

Case VIII.—Miss W., aged 10, has had a purulent discharge from both ears for more than eight years. At times the discharge was not noticeable. She has been treated during the last three years by the usual methods of treatment without much relief. The hearing has grown steadily worse. She has great difficulty in hearing loud conversation three feet away. Bone conduction is better than air conduction. The right ear has better bone conduction, as well as better air conduction, than has the left ear.

March 26, 1894, operation on the left ear under ether was performed at the New York Eye Infirmary with the assistance of Drs. FRANCISCO and TRE-Fontaine. Two days later iodoform gauze was inserted in the canal, and balsam of peru instilled. Four days later the dressing behind the auricle was removed. Along the line of the sutures there

was primary union. The sutures were removed. The patient left off the bandage. The iodoform gauze was changed daily, and balsam of peru instilled at the same time. The discharge from the ear became rapidly less, and in three weeks was scarcely perceptible. It never became purulent. The patient disappeared from observation. Dec. 16 the patient called to report. She had not been seen for eight months. During this time the balsam of peru was instilled daily into each ear. The discharge became purulent. Her hearing is much improved. She hears in each ear the watch $\frac{1}{8}$ ". The operated ear resembles the right except that the tympanum is enlarged posteriorly and above, and has more of the bone covered by a healthy cicatrix. The operation was not sufficiently thorough to remove all the diseased bone.

Case IX.—Mr. M., aged nine, has had a purulent discharge from his left ear for more than five years. He has been treated by a number of physicians. I saw him in August, 1895, and removed a polypus from the tympanum. The membrana and ossicles were absent. The hearing was doubtful. The right ear seemed normal. Sept. 30, under ether, the STACKE operation was performed at the Northeastern Dispensary, Drs. OTTO and FINKLESTONE assisting. The light was poor. The mastoid was sclerosed and the antrum small.

Seventeen days later the collodion dressing was removed. The wound had healed by primary union. The sutures were removed. The patient had partial paralysis of the facial, which was noticed first the day after the operation. Five weeks after the operation the canal was nearly filled with granulations, which gradually subsided after applications of chromic acid. The discharge from the ear has been very slight, never purulent, and finally ceased in two months. Balsam of peru was instilled into the meatus and canal several times daily.

Case X.—Mrs. E., aged 27, was operated upon Dec. 4, 1895, Drs. OTTO and SHEPHERD assisting. The operation was done to relieve mastoid neuralgia and to cure the otorrhea. The membrane and ossicles were removed last spring. The antrum was opened before reaching the aditus. An unusual amount of the bone was removed, the cavity formed extending more than an inch behind the canal. Four days later the collodion dressing was removed and the wound found indrawn and united by primary intention. The canal was not packed. The blood-clot was allowed to form a dry crust in the canal; a portion of this crust was removed, and there has been a slight serous discharge since. The highest temperature was 99.9° , four days after the operation. A week after the operation the patient attended to her duties of teaching. Balsam of peru has been instilled into the canal three times daily. A small piece of cotton is worn in the meatus.

Conclusions.—1. The STACKE operation is an improvement over the classical mastoid operation, and should always be done in acute and chronic mas-

toiditis when there has been suppuration of the tympanum.

2. To cure chronic otorrhea the Stacke operation is indicated in obstinate cases, and it is a better operation than any heretofore proposed.

3. If the operation is properly done, the discharge stops in a few months or less. If the otorrhea persists more than six months, a second operation may be necessary to remove the diseased tissue and bring about a cure.

4. The dressing and after-treatment need further study.

5. Finally we should give STACKE the credit of suggesting an operation which is a distinct advance in the science of the surgery of the ear.

New York: 64 East Fifty-eighth street.

[For discussion see page 84.]

ORBITAL CELLULITIS PRODUCED BY A GUNSHOT WOUND OF THE FRONTAL SINUS.

By H. DAVISON SCHWARZSCHILD, M.D.,

Consulting Ophthalmic and Aural Surgeon; also Pathologist to the New York Red Cross, Etc.

THE patient who suffered from the above-named condition—a young man 20 years of age—presented himself at my clinic some months ago for treatment. He appeared very feeble, and his face was emaciated and flushed.

The left upper eyelid was red, tense, and greatly swollen. In fact, this extreme non-fluctuating swelling prevented him from exposing the globe in the slightest degree. By means of gentle digital manipulation a portion of the cornea became visible, and was seen to be normal, likewise the iris. There was considerable chemosis and some congestion of the palpebral conjunctiva, but practically an absence of secretion. A well-marked exophthalmus existed, and the eye was forced slightly downward and outward. On the upper edge of the narrow eyebrow, in its middle third, was observed a clean-cut opening about one-sixth of an inch in diameter. He was unable to explain the cause of this condition, but remembered that while boating on the Harlem River two days before, toward evening, he felt a stinging sensation on the brow. Upon touching the spot with a finger he noticed a drop of blood upon it. In answer to my query, he said he did not see any gunning party in the vicinity. Why I asked the question is self-evident. When he reached home that night his eye began to hurt him, and the lid gradually swelled; flaxseed poultices were applied for two days, but not sufficiently assiduously, however, to destroy the eye.

He had a chill, and his temperature, the time I first saw him, was 103 deg. F. *per os*. I ordered him to be placed in the wards, and continued the examination. A probe, which was inserted into the little opening, passed inwardly—*i.e.*, nasally, and slightly backward—for three-eighths of an inch (9 mm.), and was there impeded by a dam of granu-

lation tissue. I overcame this obstruction and continued onward until I reached the sinus. Here there was so much cellulitis of the adjacent tissue that the probe could not advance farther. The symptoms clearly indicated that a foreign body had entered the frontal sinus, and that a pus focus existed. In order to relieve the external pressure which endangered the eye, a deep incision was made almost the entire length of the lid, and hot compresses were ordered to be applied continuously.

The next day pus made its appearance from the nasal portion of the incision, and also from the opening in the brow, and continued thus, accompanied by a fall of temperature, for a week. The swelling and chemosis were considerably reduced, but the pus still kept flowing. As the patient was now feeling stronger, I slit up the fistula with a bistoury, under anesthesia, to the frontal sinus. Here there was considerable granulation tissue, which I curetted. The traumatic opening into the frontal sinus being too small to permit an exploration to be made, I enlarged it with a mastoid gouge. The mucous membrane was greatly swollen, and the cavity contained pus in quantity. A careful examination, made by means of a probe, revealed the presence of a foreign body imbedded in the membranous lining, which, upon removal, proved to be a large-sized bird-shot.¹ After having been thoroughly irrigated, the sinus was packed with, and drained by, bichloride gauze. The subsequent cure proved uneventful; the inflammatory symptoms subsided, the temperature became normal, and the wounds granulated; at the end of a fortnight, the patient left the hospital with the perfect use of both eyes.

One point which I desire to emphasize in concluding is that the greatest care should be taken not to permit wounds, where pus has existed, to close too rapidly. They should be encouraged to granulate from below, but not to adhere above; unless they are well packed, this will usually occur, requiring then a reopening.

It is hardly necessary for me to dilate upon the features of the case just described. The peculiar circumstance of a person being shot and remaining in ignorance thereof is a not uncommon experience in the heat of battle, but in the case of a civilian in time of peace it may naturally be regarded as an extremely rare event.

New York: 46 West 35th street.

Precocious Puberty.—M. H. CAMPBELL, of London (*Sem. med.*, 1895, No. 50, p. 510), related the case of a boy 14 years of age whom he had known for 10 years. At five months the child had a growth of hair on the pubis. At two years of age the genital organs were fully developed, and have not changed since then. At the same time the child had erections and sexual excitement. Two or three years later he began to have emissions of semen. The fluid ejaculated had the appearance of normal semen, but it was not examined for spermatozoa.

THREE CASES OF FISTULA IN ANO*

By J. M. MATHEWS, M.D.

Professor of Surgery and Clinical Lecturer on Diseases of the Rectum in the Kentucky School of Medicine; Rectal Surgeon to the Kentucky School of Medicine Hospital and the Louisville City Hospital, etc., Louisville, Ky.

SEVERAL years ago Dr. LANGE, of New York, proposed to heal *fistula in ano* after operation, by first intention; in other words, doing an operation by which we can get apposition, and have these wounds heal by first intention. In the last ten days I have had such a run of cases that illustrate such a common type of *fistula in ano*, and which disprove his theory, that I will report three of the most typical ones.

Case I.—A gentleman from an interior town of Ohio was sent to me after having had performed upon him four operations for *fistula in ano*, evidently by good men. One of the operations was done with the idea of getting union by first intention. The others were done by the open method. Examining this man I found that the channels which had been cut through were healed, and, to take a view of the buttocks and anus, one would suppose that the man had nearly recovered from his *fistula in ano*; but he knew by the great pain, especially the reflex pain manifested in the back and legs, that the disease had not been entirely eradicated. He had not been able to walk two blocks in three years.

Upon introducing my finger about $1\frac{1}{4}$ in. above the external sphincter muscle, a small opening could be felt. No probe could be introduced into it. This was sufficient evidence to call for another operation, to which he reluctantly consented, remarking that he had already undergone, for the relief of his condition, four operations, resulting in only temporary benefit. Under chloroform, introducing my finger again into the rectum, with a little pressure it passed through the opening that had partially healed, and to my surprise I could then dilate the opening sufficiently to admit my three fingers; they went right back of the gut separating the latter from the sacrum. I also found that I could introduce my three fingers clear around toward the perineum. These channels were as slick as glass, without any indication whatsoever of healing by granulation. There were no granulations at all. This condition, of course, accounted for the reflex pain, from the fact that feces would pass into this opening and cause pain by irritation. It is not necessary to say that the operation I did was to completely lay open the sites of all these channels, and then dissect out the lining membrane, and curette the very bottom until I had got away the so-called pyogenic membrane that used to be spoken of by older writers. In less than two and one-half weeks the incisions have almost completely healed, pain has ceased to be a factor in the case, and a perfect result is assured.

Case II.—This case was that of a man from Dallas, Tex., who had undergone 13 operations for

fistula in ano, the first two having been based upon getting union by first intention. When he reported to me, I found that both sphincter muscles had been entirely destroyed by these numerous operations. It was then a question with me of restoration of the sphincter muscles, but more especially relief of the great pain from which he suffered. He was very reluctant to consent to another surgical procedure, inasmuch as 13 operations had already been performed and he had not been permanently relieved. As far as the fistulous channels were concerned, I found none that had not healed except one, which was at that time rather insignificant, but the mucous membrane protruded for nearly the entire circumference out of the anus to the extent of $1\frac{1}{2}$ in. Considering that pain was a factor in the case, I removed 2 ins. of the gut, and did an operation looking to cicatricial formation that would assist him in controlling his actions.

Case III.—This case was that of a woman, from the City of Mexico, who had been operated upon four times, each operation having been done by the stitching method. The result in her case was that the external wounds apparently had healed as far as the skin was concerned, but the anus was diverted from its natural direction, being to one side, a cicatricial formation from the perineum covering one-third or one-half of the anus. By the insertion of a probe, I discovered the original channel, which had not healed.

I claim that, in operating upon complicated cases of *fistula in ano*, if you do a thorough operation, either by curetting, which I do not much believe in, or by the open method, you cannot get apposition sufficient to insure healing by first intention. The surgeon who practices that kind of a method is simply wasting his time and will not get good results. I do not believe that one case out of fifty of the ordinary run of *fistula in ano* can be so operated upon that you can possibly get union by first intention. These remarks are called forth more especially from reading in journals; within the last week I have read reports of such cases in three or four of them. One operator goes so far as to say that *fistula in ano* he no longer fears, in that he gets union by first intention by the LANGE method. Certainly surgeons who have had much to do with operating for great cavities around the rectum (they are more than sinuses) recognize that these cases cannot be cured until the lining membrane of these cavities is dissected out and followed in different directions until all are divided, and that it is impossible to get a proper apposition. Therefore, I take it that the older methods—those practiced by the old masters, if you please, fifty years ago—have never been improved upon. They state that *fistula in ano* must heal from the bottom by granulation. They knew the pathology or the etiology of this condition about as well as we now know it, and it cannot be said that, because of the aseptic or antiseptic methods which have been introduced, we can change the manner of operating upon *fistula in ano*.

* Exhibited at a meeting of the Faculty of the New York Red Cross.

* Reported to the Louisville Clinical Society.

In conclusion, I believe that in the vast majority of cases of *fistula in ano* the procedure should be the open method, and our operation must be done looking to healing by second, and not by first, intention.

REPORTS AND VIEWS

A MEDICO-LEGAL QUESTION

To the Editor of the A. M. S. BULLETIN:

J. M., aged 55 years, a baker by trade, at 3 a.m. on the morning of July 19, while slightly under the influence of liquor, was attacked by two men, and struck a severe blow over the upper and inner border of the left supra-orbital ridge, inflicting a lacerated wound in the tissues, $\frac{3}{4}$ in. in length, and exposing the pericranium. The force of the blow was such that he was felled to the ground, and there remained until one hour later, when he was found by the police, bleeding profusely from the wound, and with his mental faculties so dazed and confused that it was not possible to get from him a succinct statement: he was not, however, nor did he subsequently become, unconscious, or lapse into a condition of stupor. It was at the time impossible to determine whether the dazed condition of his mind was due to the blow, to the concussion which might have resulted from striking his head when he fell, or to the partial alcoholic intoxication under which he was laboring, or whether it was due to the combined influences of these several causes.

The man was taken to the hospital, his wounds dressed, and he was put to bed. No untoward symptoms followed, and 24 hours later he had recovered entirely from the mental confusion which existed immediately subsequent to the receipt of the injury, and was able to appear in the police court and identify his assailants. The dressings from the wound were removed after the lapse of 72 hours, when the wound was found to have healed by first intention, and at that time, with the exception of a slight conjunctival ecchymosis of the left eye, the man was considered well. On the eighth day after the receipt of the injury he was discharged from the hospital, apparently as well as before the receipt of the injury. He remained under observation, seemingly well, for 10 days—i.e., until 18 days after the receipt of the injury—when he was taken with symptoms of encephalitis, followed by those of compression, and, after lying in a stuporose condition for a week, he died. Post-mortem examination revealed the existence of two large abscesses in the right hemisphere of the brain, which had already found their way into the right lateral ventricle. There were also smaller abscesses elsewhere in the brain, and an examination of the lungs disclosed a like condition existing there; i.e., the presence of several circumscribed abscesses. A careful examination of the inner and outer tables of the skull and of the meninges, beneath the site of the wound, failed to reveal the slightest injury, or

to give any evidence of extension, by continuity, of diseased process from the external wound to the foci of disease within the brain. Nor were there any evidences of either aural or nasal disease, the presence of which might have been considered a causal factor in the production of the abscesses. Query: Were the abscesses in this man's brain caused by the injuries he received when he was assaulted? and should his death be attributed to the injuries which were at that time inflicted? In other words, are his assailants guilty of murder?

ALWARD WHITE, M.D.

EL PASO, Texas, August 22, 1895.

Treatment of Dry Rhinitis.—F. SIEBENMANN (*Med. Week*, 1895, III, p. 562). Anterior dry rhinitis is a variety of nasal disease which is not generally recognized in spite of its being very common, as is evident from the fact that it is met with in 10 per cent. of all cases of nasal diseases. This affection is said to be the cause of recurrent epistaxis and non-syphilitic perforations of the nasal septum.

Anterior dry rhinitis is ushered in by a painful sensation of tension, and the formation of crusts in the nares and around the vibrissæ. The mucous membrane assumes a dark-red color, and is sometimes dry, at other times covered with viscid secretion. The crusts situated on the septum becoming detached spontaneously or by scratching, give rise to hemorrhage and ulcers, which may lead to perforation of the septum of the nose.

The treatment of anterior dry rhinitis consists mainly in the application of ointments calculated to exert a favorable influence on the mucosa by stimulation of its secretory function and softening of the crusts. The vibrissæ should be cut short, and the patient must not under any circumstances pick off the crusts with his nails.

Lastly, to improve the general condition, recourse is had to saline baths and the administration of iron, arsenic, cod-liver oil, creosote, etc.

The ulcers of the nasal septum, which are the source of the epistaxis, Dr. S. treats by applications of potassium permanganate in solid form. This method of treatment is said to give much better results than the galvano-cautery, which has the disadvantage of damaging the nasal septum. The manner of application is as follows: A probe, with a piece of cotton-wool twisted round the end, is slightly moistened and dipped in finely powdered potassium permanganate. This having been applied to the affected region, the surplus is wiped away.

Dr. S. also states that the application of potassium permanganate in this way is an excellent means of treating dilatation of the veins of the nasal septum.

Fecundity of some French Women.—Three sisters, of Lille, were pregnant in the aggregate 70 times. Of 53 children, however, only 21 lived. The large infant mortality was attributed to the unsanitary condition of their dwellings.

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DR. JOHN S. BILLINGS has been appointed superintendent-in-chief of the consolidated Tilden, Astor, and Lenox libraries. This is an eminently fitting appointment and a well-deserved recognition of Dr. BILLINGS's peculiar ability. Aside from his other works Dr. BILLINGS has earned enduring fame through his index catalogue of the library of the Surgeon-general's office.

PRIVILEGED COMMUNICATIONS.—The Court of Appeals has recently handed down a decision interesting to the profession, bearing, as it does, directly upon the question of privileged communications.

A woman sued a railroad company for injuries she had received in a railroad accident. During her illness the attending physician called in a consultant; both of them examined her to find out if her spine had been injured.

When the suit was tried the plaintiff had the attending physician called as a witness, but did not call the consultant. The railroad company, in its defense, however, called upon the latter to give his opinion of the injuries. The plaintiff's counsel objected to the consultant's testifying, on the ground that it was a violation of a section of the Code of

Civil Procedure relating to the question of privileged communication. The objection was sustained by the Court and the consultant's testimony excluded. The plaintiff won the case. On appeal by the railroad company to the Court of Appeals, it was decided that inasmuch as one of the physicians had been called to testify by the plaintiff she had waived her right in the matter of privileged communications. "The considerations and reasons upon which the statute was founded no longer exist when full disclosure is made by either with full consent of the patient, and every party to the transaction thus disclosed is relieved from the injunction of secrecy."

The section of the code referred to reads: "A person duly authorized to practice physic or surgery shall not be allowed to disclose any information which he acquired in attending a patient in a professional capacity, and which was necessary to enable him to act in that capacity."

WE await with much interest a further report on the discovery said to have been made by Prof. RÖNTGEN, of Würzburg, of a property that the light emitted from a Crooke's tube has in penetrating opaque substances such as wood, flesh, most other organic substances, and at least one metal, namely, aluminum. According to the cable dispatches in the *Sun* the discoverer has photographed metal weights which were inclosed in a wooden box, and a man's hand, showing only the bones, the flesh not being visible. It has also been used, so it is reported, to photograph broken limbs and bullets embedded in the flesh. Later news says that Prof. KLUPATHY, of the Pesth University, has obtained even greater success in photographing concealed objects.

If this reported discovery proves to be true, it would be of immense value to at least two branches of medicine—surgery and obstetrics; the size of the fetal head as compared with the maternal pelvis could be readily determined by such photographs. Its value in surgery, particularly bone surgery, can be easily understood.

Until we have learned more of the detail, however, we are disposed to be skeptical regarding this new triumph of science.

Frowns and Prophylaxis.—Some Brooklyn women recently discussed ways and means for stopping expectoration in public places. It was suggested to gain the offender's attention, and to make the victim so uncomfortable by frowns and remarks that he will have to desist to escape this novel persecution.

GENERAL MEDICINE

In charge of WILLIAM CHARLES GUTH, M.D.

Instructor in Pathology, General Medicine, and Intubation at New York Post-GRADUATE MEDICAL SCHOOL AND HOSPITAL

and

HENRY T. BROOKS, M.D.

Instructor in Histology and Pathology at New York POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL.

The Principles of Dietetics.—Prof. J. Uffelmann
(*Zeitschr. f. Krankenpflege*, 1895, XVII, p. 241)

Even in ancient times, dietetics was admitted to be of the greatest importance in the treatment of various diseased conditions. But at no time has its value been appreciated as it is to-day. The large number of articles on this subject published in the last few years proves this statement.

The nourishing of a patient is a part of the treatment of the diseased condition, and must always be regarded an integral part thereof and inseparable therefrom. It must, therefore, follow certain rules, and be of such a nature as to act favorably on the course of the disease, or at least to relieve in a measure certain symptoms. In other words, dietetics must assist whatever other therapeutic measures are employed. Very often, it is true, a proper diet will be sufficient to effect a cure. And this fact again proves that the art of medicine cannot do without dietetics.

In order that a diet should prove of value, both the nature of the disease and the individual himself must be considered. It would be a grave mistake to prescribe the same diet for all cases of pneumonia, or another for all cases of typhoid; the individuality of the particular patient must be regarded. As the author has said, the diet must support the other therapeutic measures. For example, in a case of vomiting and diarrhea, where the chief object is to combat the acute inflammation of the gastric and intestinal mucous membranes, and thus relieve the severe symptoms, the diet must exclude anything and everything that might irritate the diseased membranes; and, on the other hand, should consist of articles which serve to check the inflammatory process—e.g., small bits of ice and icewater in small quantities. In inflammatory diseases of the brain and of the meninges it is necessary to exclude everything that might irritate the diseased organs; thus we would exclude bright light, loud noises, etc. Our dietary, in order to support this plan of treatment, would naturally exclude all irritating articles, such as spirituous liquors, tea, coffee, etc.

Of equal importance to the nature of the disease is the consideration of the individual himself. And in this regard the patient's powers of digestion demand attention. For the only nourishment which is of value to the patient is that which he digests; and this is true, irrespective of the nature of the disease; and, secondly, experience teaches us that particles of undigested food are more apt to irritate the sick than those in health. Then, again, the powers of digestion are not equally good in all patients, even in the same disease. Thus there are typhoid cases who digest fairly well, and others who are unable to digest the simplest kinds of food. It therefore clearly becomes the duty of the physician to study every case individually in this regard.

The age of the patient must also be taken into consideration. Thus, for example, we know that children are very sensitive to alcoholic stimulants, and, again, that they are far less apt to die of heart failure than adults.

The general nutritive condition, as well as the

constitution of the patient, must be regarded. A man who has been in perfect health up to the time he enters upon a siege of disease, is equipped with a certain amount of strength and vitality, which cannot be placed to the credit of him who has lived on a sparse diet, or has suffered from loss of blood and strength from various causes. In this latter case it would be wrong to order a diet poor in nutritive principles, no matter what the nature of the disease might be.

The last point which the author lays stress upon, is habit. He says it is not advisable to have the patient take his meals at different hours from those at which he is accustomed to eat, for it has been proved that the functions of the digestive organs are markedly influenced by the accustomed hours for meals. Nor should we exclude coffee or tea in cases where the persons have become accustomed to their effect, unless they are directly contra-indicated. He also admonishes the exercise of care in forbidding the use of alcoholic stimulants in persons who take liquors generally. In regard to the choice of foods, we must consider the habits of the patient. There are foodstuffs which some individuals, by dint of accustomed taking, are able to digest quite readily; whereas the same articles of diet would cause in others considerable discomfort. Particularly in arranging the diet for chronic gastric catarrh is it of importance to inquire what foodstuffs are easily borne. And in this respect, as a rule at least, the patient's word should not be credited very much. The personal observation of the physician will insure more truthful answers.

In making out a dietary, then, it becomes the duty of the physician to individualize, in order to get the best results. To order a routine diet in all cases would be unjust toward the patient.

Now, although, as we have seen, it is necessary to consider the idiosyncrasies of each case, we are still able to formulate certain fundamental principles to govern the diet in case of disease. In the first place, it must be remembered that disease brings about an alteration, but not a complete change, of the normal functions, and of the normal conditions of metabolism. The patients, therefore, in order to live and overcome the disease, require the same nutritious substances as the healthy—namely, albumin, fat, carbohydrates, water, and salts. It is only the quantity and the relative proportion of each that must be determined in disease. These depend on the indications.

Just as the healthy, so the sick, can hardly dispense entirely with those foods which are taken merely for pleasure. They serve to give the food a certain relish, and at the same time bring more variety into the dietary.

For the majority of patients the diet should consist of bland and easily digested foods. For this reason we exclude, in general, the coarse, fatty, sour, and strongly seasoned foodstuffs, as well as those containing fibers. Fluid and soft articles of food are best adapted in febrile diseases. In some diseases it is best to order food which, having been predigested, need only be absorbed. This kind of food is indicated when the patient is unable to digest, or at best digests imperfectly, or when we desire to rest the organs of digestion for a time.

As a rule, it is best to give smaller meals, giving them at shorter intervals. The temperature of the food should be about that of blood-heat, being cooler, even cold, in fevers and in irritability of the stomach, and hot where we desire to excite.

Variety in diet should be sought after, the dietary of the sick being at best a very limited one.

Finally, it seems necessary to insist on taking meals regularly. Regularity in eating and drinking promotes digestion, a fact noticed particularly in infants.

The success of dietary instructions depends in a large measure on the manner in which they are carried out. It is necessary that the physician should see to it that the instructions given be carried out to the letter, and for this reason it is best to give them in writing.

A Case of Phthisis Apparently Cured.—WILLIAM PEPPER, M.D. (*University Med. Mag.*, 1895, VIII, p. 157)

The patient was a woman of 21 years, with a decided tubercular taint. In March, 1893, she suddenly began to lose flesh, had anorexia, deranged digestion, cough, and expectoration. The disease progressed so rapidly that when first seen, in the latter half of the month, she was already bedridden. She was found extremely emaciated. Constant irregular fever, with high evening rise. Night-sweats were profuse and exhausting. The slightest cause would provoke violent vomiting. The expectoration was thick, tenacious, heavy, and of an average amount of eight ounces. There were increased fremitus, dullness on percussion, and bronchial breathing with fine crackling râles over the right apex and the left base. The sputum contained myriads of tubercle bacilli.

Egg-albumen, agreeing better with her stomach than any other food, was taken daily to the amount of the albumen of two dozen eggs. Hypodermatically, every two hours, there was given $\frac{1}{100}$ grn. of strychnine nitrate combined with $\frac{1}{1000}$ grn. of atropine sulphate; by mouth, every two hours, $\frac{1}{10}$ grn. of strychnine nitrate combined with $\frac{1}{10}$ grn. of the double chloride of gold and sodium and $\frac{1}{2}$ grn. of a vegetable digestive. She was also given cod-liver oil inunctions, with massage and passive movements, daily. After a few days, the gold and sodium was increased to $\frac{1}{8}$ grn. every two hours. When strychnine intoxication showed itself the drug was reduced, but later again increased so that she was just inside the border-line of the drug's toxic action.

During April she gained flesh, the fever became less, night-sweats were less profuse, cough allayed, and the expectoration, still rich in bacilli, was much reduced. During the latter part of May she regained her normal weight of 125 lb. The fever and night-sweats disappeared. Digestion normal and appetite good. Cough and expectoration very slight. Tubercle bacilli gone. The signs of consolidation disappeared only slightly, harsh breathing remaining over the affected parts. She was sent to the mountains with instructions to continue the general treatment and to practice deep and forced breathing. In September she returned in perfect health, weighing 134 lb. She remained well until August, 1895, when she had a slight attack of pneumonia in the left base. The sputum resembled prune-juice and was crowded with pneumococci and tubercle bacilli. Crisis on the eighth day, and a few days later she was sent to the mountains.

She returned in 10 days with anorexia, fever, cough, and expectoration full of tubercle bacilli. Weight, 114 lb. Consolidation with moist râles over the left base. The same treatment was instituted as during the first attack. On November 1, 1895, her weight was 124 lb.; fever gone, and cough and expectoration almost disappeared. Since the last week in October there were no

tubercle bacilli found. The consolidation was greatly reduced, and a few days later the patient was again sent to the mountains.

Noteworthy points in this case are: The sudden onset, quite like general military tuberculosis; the large number of bacilli; the rapid recovery, all the more remarkable with a pronounced tubercular family history; the complete disappearance of consolidation and bacilli; the acute reappearance after two years of the whole train of symptoms, with signs in the base of the left lung directly following an attack of pneumonia located in that vulnerable part; the large number of bacilli and their early complete disappearance in the second attack; the abatement of the consolidating process, and rapid recovery of the general health after the second attack; the absence from the treatment of all cough-medication and antiseptics, and the large doses of strychnine nitrate and the double chloride of gold and sodium, with which the system was kept literally saturated

On Intubation and the Use of Diphtheria Antitoxin in Croup.—CHARLES A. HOUGH, M.D. (*Cincinnati Lancet-Clinic*, 1895, XXXV, p. 669)

The fatal lesions in croup are laryngeal stenosis and its consequences and a general toxemia. The former are best treated by intubation; the latter by early injection of diphtheria antitoxin.

A laryngeal stenosis causing sudden asphyxia is comparatively rare. More frequently is a gradually increasing pulmonary embarrassment, due to the mechanical obstruction in the larynx. The pulmonary symptoms are the indications of the gravity of the stenosis and the necessity for its relief. In proportion to the relief afforded before respiration becomes irremediably damaged, the statistics of intubation improve and the mortality of croup diminishes. The upper part of the lungs are better situated for inspiration and the lower for expiration, when there is a mechanical obstruction in the larynx. Hence in the former distention arises, and atelectasis in the latter. The diaphragm may sink as low as the twelfth rib, and its respiratory movements diminish. These obstructions to respiration and to pulmonary and bronchial circulation, together with the result on the heart, added to the effect of vitiated blood upon the respiratory centers, form a "vicious circle," whose only opening is the laryngeal stenosis.

Intubation should be done early, and not as a last resort. It is a therapeutic procedure that should be used promptly, just as the forceps are used in dystocia. "When an unremitting dyspnea allows a considerable part of the posterior portion of the lung to become non-inflated, and the labored breathing begins to produce exhaustion, intubation is to be performed promptly. If air cannot be aspirated, blood will be, and pneumonia is invited."

The Gonococcus as the Cause of Pyemic Abscess.

—Prof. O. Bujwid (*Cent. f. Bakt. u. Parasitk.* 1895, XVIII, No. 14, p. 435)

A man, aged 32, suffering from chronic urethral gonorrhea, in the discharges of which gonococci were demonstrated, was taken with chill two days after catheterization. The chill lasted for a considerable period, and recurred a few times during the following 10 days. There subsequently formed four abscesses in the neighborhood of the left brachial joint, in the right fossa poplitea, at the inner side of the left leg, and above the right external malleolus. All the abscesses were in the muscles—none in the connective tissue or joints.

The small amount of odorless, reddish-brown pus

was at once examined microscopically and culturally. What the author calls gonococci were obtained in pure culture upon serum agar-agar. These observations, he believes, prove that the gonococcus belongs to the pyogenic cocci, and that, under certain conditions, they can excite pyemic processes.

Anthrax in the Fox, Following Ingestion of Infected Flesh.—Prof. O. Bujwid (*Cent. f. Bakt. u. Parasitk.*, 1895, XVIII, No. 14-15, p. 435)

A fox which had been kept for some months in a cage in the Hygienic Institute of Krakau was fed upon the carcass of a rabbit dead of anthrax. On the following day the animal was depressed and refused to eat; on the third day it was found dead. Post-mortem examination showed capillary extravasations at many places in the subcutaneous adipose tissue. The same phenomenon was also observed in the muscles. Acute spleen tumor. Heart blood coagulated. From the blood and various organs, rich cultures grew upon slanted meat-peptone agar after 24 hours at 37° C. This case is reported because of the rarity of such an occurrence in wild animals.

NEUROLOGY AND PSYCHIATRY

In charge of PEARCE BAILEY, M.D.

Assistant, Nervous Department, Vanderbilt Clinic, College of Physicians and Surgeons.

Syphilitic Spinal Paralysis.—J. Sottas (*Int. Med. Mag.*, IV, No. 9)

Syphilis may first attack the nervous system either in the parenchyma or in the vascular lymphatic or connective-tissue elements to which parenchymatous changes are secondary. The latter manner is the most frequent.

Syphilis of the cord appears at a period near that of infection, with a maximum between the end of the first year and the end of the sixth, and is much more frequent in men.

Be the lesions confluent or be they disseminated, the result is always the same, and they produce the effect of a transverse lesion, accompanied by a secondary degeneration ascending and descending. The lesions involve especially the territory of the postero-lateral spinal vascular system. They may predominate in certain regions of the cord—the lateral columns, the posterior columns, the gray substance of the anterior horns—and thus simulate certain systemic affections.

The ordinary clinical evolution is the following: At the period of formation of the primary vascular lesions and of those of the meninges, there are diffuse premonitory phenomena.

At the period of softening and of degeneration of the nervous elements, there is an attack of paraplegia, followed by paralytic phenomena and grave trophic troubles.

At the period of sclerosis there is the chronic spastic paraplegia.

The abrupt début can be manifested without being preceded by a prodromic phase, or in other cases the spastic paraplegia comes slowly without passing through the acute stage.

Death may occur either in the first period of the affection from the localization or extent of the lesions, or more slowly from the progress of the affection, or from a complication.

The ordinary termination of the affection is a spastic paraplegia persisting in a chronic state after an amelioration more or less marked.

The complete recovery is only possible in certain conditions, when the primary vascular and meningitic lesions have been arrested before the final destruction of the nervous parenchyma.

The reorganization of the necrosed nervous tissue if it is possible, is manifested only in a limited degree.

In certain conditions the primary inflammation is accustomed in the meninges, producing a meningitis or a pachymeningitis, or else it assumes the form of a circumscribed gummatous neoplasm.

The iodo-mercurial treatment is demanded at the appearance of the first symptoms. It acts only on the primary inflammatory productions, and is without influence on the necrobiotic lesions once established.

The medullary syphilis is always a serious affection. Death may intervene in spite of treatment, especially in the acute forms. Outside of certain rare fortunate cases where complete recovery is obtained, the amelioration never goes beyond a certain limit, which is fixed on account of an incurable sclerotic cicatrice of the cord.

Treatment must be instituted very early. The head must be extended and the spine supported in removing the patient, so as to prevent dislocation. The patient must lie flat in his bed with his head extended by weights. The use of the water-bed is not advisable, but pressure upon the limbs must be prevented. Operation in recent cases is not indicated. After the fourth week the faradic current was applied; later massage was used, which strengthened the muscles and improved the mobility of the joints.

Intoxication in Epilepsy.—VOISIN and PETIT (*Arch. de Neurol.*, April-August, 1895; ref. in *Am. Jour. Ins.*, 1895, LII, p. 250)

Epilepsy is a hereditary disorder, and its manifestations are connected with a special disposition of the nervous system.

Etiologically it may be divided into two classes: reflex epilepsy and toxic epilepsy.

Reflex epilepsy is not accompanied by gastrointestinal disorder, and is less serious: while toxic epilepsy is always preceded and accompanied by gastro-intestinal disturbance, and is graver.

Toxic epilepsy may arise either from hetero- or auto-infection. Reflex epilepsy may be transformed into toxic epilepsy, and take its symptoms, course, and termination.

In epilepsy from intoxication, when the condition is accompanied by cortical hemiplegia, there is often a kind of spastic tabes or cerebral diplegia associated with the ordinary epileptic dementia.

The treatment should aim at two things—the predisposition and the epileptic attacks.

The bromides react upon the predisposition, but they should be used in varying doses, and be suspended on the appearance of gastric disturbance.

The treatment for the attacks themselves should not be continued through the free intervals.

The toxic seizures may be prevented, and should be met when the premonitory symptoms appear.

In true general toxic epilepsy the poisoning must be checked and the system freed of the toxic products by purgatives, intestinal antiseptics, washing out of the stomach, diuretics, artificial-serum injections, hydrotherapy, prolonged baths, dry frictions, and spirit lotions.

MATERIA MEDICA

In charge of WILLIAM FANKHAUSER, M.D.

Remedies Introduced in 1895

ADHESOL.—Mixture of copal resin (35), gum benzoin (3), balsam tolu (3), ether (2), oil thyme (2).—Surgical dressing.

AIROL.—Bismuth oxiodogallate.—Surgical antiseptic.

AKOLETHE.—Proprietary "solution of the sedative principles of opium."

ALPHA-CREOSOTE.—Mixture of normal constituents of creosote, containing 25 per cent. of crystallized guaiacol.

ALPHA-GUAIACOL.—Crystallized synthetic guaiacol.

AMINOL.—Solution of calcium oxide, sodium chloride, and trimethylamine.—Antiseptic.

AMMONIUM GLYCERINOPHOSPHATE.—Nervine.

AMMONIUM PERSULPHATE.— $(\text{NH}_4)_2\text{S}_2\text{O}_8$.—Antiseptic and deodorant.

AMMONOL.—Ammoniated phenylacetamide.—Analgesic and antipyretic. Dose: 0.3-1 gme. (4½-15 grn.).

AMMONOL SALICYLATE.—Analgesic and antirheumatic. Dose: 0.5-1.5 gme. (7½-23 grn.).

AMYGDOPHENIN.—Para-amidophenol amygdalate.—Antipyretic and analgesic. Dose: 1 gme.

ANHALONINE HYDROCHLORATE.— $\text{C}_{11}\text{H}_{15}\text{NO}_3$.—Spastic and nerve, like strychnine.

ANILINE SULPHATE.— $\text{C}_6\text{H}_7\text{N.H}_2\text{SO}_4$.—Internal cancer-remedy. Dose: 0.1 gme., gradually increased to 0.8 gme., daily.

ANTHION.—Compound consisting chiefly of potassium super-sulphate. Substitute for Javelle water or hydrogen peroxide in photography.

ANTICANCERIN.—Prof. Emmerich and Scholl's cancer-serum used in erysipelas.

ANTINOSIN.—Sodium salt of nosophen.—Antiseptic.

ANTIPHLOGISTINE.—Proprietary antipyretic.

ANTIPLYONIN.—Sodium tetraborate or polyborate.—Antiseptic.

ANTISTREPTOCOCCIN.—Serum preparation used against erysipelas.

APOLYSIN.—Monoparaphenetidine-citric acid, $\text{C}_9\text{H}_4(\text{OH})\text{CO}(\text{OH})\text{CO.NH.C}_6\text{H}_4\text{OC}_2\text{H}_5$.—Analgesic and antipyretic. Dose: 0.5-1.5 gme.

ARECOLINE HYDROBROMATE.—Salt of alkaloid from *Areca catechu*.—Myotic (in 1-per-cent. solut.) and veterinary laxative, like physostigmine.

ARGONIN.—The soluble silver casein salt obtained by treating a solution of casein-sodium with silver nitrate. Antiseptic and astringent, like silver nitrate.

BAPTOLENE.—Compound antiseptic solution.

BENZACETINE.—Acetoamidomethylsalicylic acid.—Antineuralgic.

BISMUTH OXYIODOGALLATE.—See Airol.

BISMUTH PHOSPHATE, SOLUBLE.—Contains 20 per cent. Bi_2O_3 .—Gastro-intestinal antiseptic. Dose: 0.2-0.5 gme.

BISMUTH PYROGALLATE.—Known also as "helcosol."—Succedaneum for pyrogallol internally.

BISMUTHOL.—"Bismuth-sodium phospho-salicylate;" soluble bismuth phosphate.—External astringent and antiseptic.

BORINE.—Compound antiseptic solution.

BORSALICYL.—Result of the action of boric acid (25) on sodium salicylate (32).—Antiseptic.

BROMALIN.—Hexamethylenetetramine bromethylate; bromethylformine.—Antiepileptic. Dose: 1-4 gme.

BROMHEMOL.—Bromated hemol.—Antiepileptic.

BROMOPHTARIN.—Mixture of calcium and iron oxides, calcium carbonate and sulphate, sodium sulphate, sand, and yellow coloring-matter.

BYROLIN.—Antiseptic ointment and cosmetic in collapsible tubes.

CÆSIUM BITARTRATE ($\text{Cs}_2\text{C}_4\text{H}_4\text{O}_6$).—Nervine and cardiac.

CÆSIUM BROMIDE.—Nervine and cardiac.—Dose: 0.2-0.3 gme.

CALCIUM BORATE.—Antiseptic astringent. Dose: 0.3-0.4 gme. (in children).

CALCIUM SULPHOCARBOLATE.—Internal antiseptic and disinfectant. Dose: 0.1-0.3 gme.

CARNIFERRIN.—"Compound of iron and phosphosarcosolactic acid."—Hematinic. Dose: 0.5 Gm. per day.

CASEIN OINTMENT.—Casein (14), potassium and sodium hydroxide 4:1 (0.43), glycerin (7), vaselin (21), salicylic acid or borax (1), and water (56.57).—Dermic vehicle.

CHLOROLIN.—Mixture of mono- and tri-chlorophenols.—Antiseptic and disinfectant.

CITROPHEN.—Paraphenetidine citrate.—Antipyretic and analgesic. Dose: 0.5-1 gme.

COCAINE-ALUM.—Crystalline compound of cocaine and aluminum sulphates.—Local anesthetic and astringent.

COLLESIN.—Professor Schiff's skin-varnish.

COPPER RESINATE.—Compound of cupric sulphate and resin, introduced as a remedy against fissured hoofs in veterinary medicine.

COTARMIN HYDROCHLORATE.—Salt of a base obtained by fractionation of narcotine.—Hemostatic.

CREOSAL.—Compound of creosote and tannic acid.—Astringent and antiseptic. Dose: 3 gme. (representing 1.8 gme. creosote) per day.

CREOSOTE CALCIUM HYDROCHLOROPHOSPHATE.—Antitubercular and antiscrophulotic. Dose: 0.1-0.3 gme., in emulsion.

CRYSTALLOSE.—Sodium salt of pure saccharin.—Sweetener.

CUTIN.—Substitute for silk or catgut; prepared from the gut of cattle.

CUPRATIN.—Organic copper compound analogous to ferratin, containing 6 per cent. of cupric oxide.—Nervine.

CUPROHEMOL.—Copper hemol.—Succedaneum for the older copper compounds in tuberculosis, scrophulosis, etc.—Dose: 0.1-0.15 gme.

DIHYDRORESORCIN.—Antiseptic.

DIODOCARBAZOL.—Antiseptic.

DITHIOCHLORSALICYLIC ACID.— $\text{S}_2\text{C}_6\text{H}_4\text{Cl.OH.CO.OH}$.—Substitute for iodoform.

ENTEROL.—Liquid intestinal antiseptic. Dose: 0.005-0.015 gme.

EUDOXIN.—Bismuth salt of nosophen (tetraiodophenolphthalein), containing 52.9 per cent. of iodine.—Intestinal antiseptic. Dose: 0.3-0.5 gme.

EUTHYMOL.—Compound antiseptic solution.

FELLITIN.—"Natural" medicinal soap, prepared from bile.—Chilblain remedy.

FER CREMOL.—Iron compound obtained from blood by the action of a "dilute neutral iron solution" containing 3 per cent. Fe.—Hematinic. Dose: 0.2-0.5 gme.

FERROHEMOL.—Ferrated hemol.—Hematinic. Dose: 0.5 gme.

FERROPYRINE.—Ferripyrrine; compound of three molecules antipyrine and one molecule ferric chloride.—Chalybeate, analgesic, and astringent. Dose: 0.5-1 gme.

FERROSINE.—Composition consisting of ferric oxide (70-75 per cent.), lime and albumen (10-20 per cent.), water, etc: (10-15 per cent.).—Paint for iron, as a color, polishing material, etc.

FLUOROL.—Synonym of sodium fluoride.

GALLICIN.—Methylic ether of gallic acid. $\text{C}_6\text{H}_3(\text{OH})_3\text{CO.OCH}_3$.—Topical antiscarrhal.

GLUCIN.—"Sodium amidotriacinsulphonate." Sweetener, 100 times as sweet as sugar.

GUAIACOL PHOSPHATE.— $\text{PO}(\text{C}_6\text{H}_4\text{OCH}_3)_3$.—Antitubercular.

GUAIACOL SUCCINATE.— $\text{C}_4\text{H}_4\text{O}_4(\text{C}_6\text{H}_4\text{OCH}_3)_2$.—Antitubercular.

GYNOCYANAURIDZARIN.—From *Gynocardia lancifoliata* and gold.—Antitubercular. Dose: 0.03-0.2 Mg.

HÆMOSTATICUM.—Extract thymus gland with 7 per cent. calcium chloride, rendered alkaline with soda solution.

HEMATIN-ALBUMIN.—Dried albumin from ox-blood.—Hematinic. Dose: 1 or 2 teaspoonfuls.

HEXAMETHYLENETETRAMINE.—See Urotropin.

HYPNOACETIN.—Acetophenonacetyl-para-amidophenol.—Hypnotic and antirheumatic.

IODOFORMAL.—Substitute for iodoform, similar to iodoformin.

IODOFORMIN.—Compound of iodoform and hexamethylenetetramine, containing 75 per cent. of iodoform.—Succedaneum for iodoform.

IDOGENIN.—Mixture of powdered charcoal and potassium iodate, or some other oxygen compound of iodine, molded into cones or pastilles.—Fumigant and disinfectant (for ignition).

IDOHEMOL.—Iodized hemol.

IRON GLYCERINOPHOSPHATE.—Nervine. Dose: 0.15-0.3 gme.

IDOIOODOFORMIN.—Compound of iodine and iodoformin.—Succedaneum for iodoform.

IODSUCCINIMIDE.—Succedaneum for iodoform.

IRON-CASEIN.—Compound of iron with casein.—Hematinic and nutritive.

KREPLINUM.—Tincture Panama bark, mixed with small quantities of aromatic oils.

LACTYL TROPEINE.—From action of lactic acid on tropeine.—Cardiac tonic.

LAIFAN.—Crude watery borneol, probably identical with Ngai camphor, and obtained from *Blumea balsamifera*.—Topical anodyne.

LAMOLEIN.—Wool-fat.—Ointment base.

LANICHOL.—Purified wool-fat. Ointment base.

LIGNOSULFIT.—Side-product in the manufacture of cellulose.—Inhalation antitubercular.

LYSOLUM BOHEMICUM.—"Derivative of tar."—Antiseptic.

MAGNESIUM SULPHOCARBOLATE.— $(\text{C}_6\text{H}_5\text{SO}_4)_2\text{Mg}$.—Laxative and intestinal antiseptic. Dose: 1-2 gme.

MALLEIN.—Specifically active metabolic products of the bacillus of glanders.—Diagnostic of glanders.

MARROL.—Dietetic preparation said to consist of ox-marrow, malt extract, and hop extract.

MEDULLADEN.—Extract of spinal cord, used against gout.

MERCUROIODOHOMOL.—Mercurioiodized hemol.—Antisyphilitic. Dose: 0.2–0.5 gme.

MERCURY OXYCYANIDE— $\text{HgO} \cdot \text{HgCy}_2$.—Surgical antiseptic.

METHYLPIRIDINE SULPHOCYANATE.—Antiseptic.

MYDRINE.—Combination of ephedrine and homatropine.—Mydriatic.

MYRONIN.—Mixture of soap, carnauba wax, and chenoceti oil.—Ointment base.

NEUROSIN.—Generic name of a number of French preparations containing calcium glycerinophosphate.

NOITOL.—Proprietary eczema remedy.

NOSOPHEN.—Tetraiodophenolphthalein.—Surgical antiseptic, like iodoform.

OIL LEDUM PALUSTRIS.—External antirheumatic and alterative.

OXYSPARTEINE.—From sparteine by slight oxidation.—Cardiac tonic. Dose: 0.02–0.04 gme.

PARACETAMIDOPHENOL ETHYLEARBONATE.—Antipyretic and analgesic. Dose: 0.5–1 gme.

PARACHLORSALOL.—Parachlorphenol salicylate. Intestinal antiseptic, like salol. Dose: 2–4 gme. per day.

PEPTONE PASTE.—Mixture of Adam Kiswicz's peptone, "wax-paste," acacia, zinc oxide, and starch.—Dressing-fixer.

PHANEROGEN.—Photographic developer.

PHENOSUCCIN.—Obtained by the action of succinic acid on para-amidophenol.—Analgesic and antipyretic.

PHOSPERGOT.—Generic name given to a mixture of sodium phosphate and ergot, occurring in three modifications.—Tonic. Dose: 0.5–1 gme.

PIPEROVATINE.—Alkaloid from *Piper ovatum*.—Spastic.

PIXOL.—"Spirit of liquid tar."—Proprietary remedy against influenza.

POTASSIUM GLYCERINOPHOSPHATE.—Nervine. Dose: 0.2–0.3 gme.

POTASSIUM AND ALUMINUM SALICYLATE.—Astringent antiseptic.

PROPYLAMINE, ANHYDROUS.—Antichoreic. Dose: 2–5 gme. per day.

PROSTADEN.—Extract of prostate gland, used in enlarged prostate.

QUINOSOL.—Quinoline compound, said to possess bactericidal powers.

RHINALGIN.—Mixture of alumnol, menthol, valerian oil, and cacao butter in suppository form.—Coryza remedy.

RUBROL.—Solution boric acid, thymol, and some "coal-tar derivative."—Injection in gonorrhea.

SALACTOL.—Sodium salicyl-lactate.—Antidiphtheritic.

SALAZOLON.—Synonym of salipyrine.

SALIGENIN.—Ortho-oxybenzylic alcohol; salicylous alcohol.—Antirheumatic. Dose: 0.5–1 gme.

SALIPYRAZOLIN.—Synonym of salipyrine.

SALITHYMOL.—Thymol salicylate.—Antiseptic.

SEPTENTRIONALINE.—Alkaloid from *Aconitum septentrionale*.—Sensory paralyzant and antitetic.

SERUM PASTE.—Serum powder with wax and zinc oxide.—Wound protective.

SERUM POWDER.—Dried, powdered, and sterilized blood-serum.—Wound protective.

SILVER FLUORIDE.— AgFl .—Antiseptic and caustic.

SODIUM CINNAMATE.—Topical antitubercular.

SODIUM GLYCERINOPHOSPHATE.—Nervine. Dose: 0.2–0.3 gme.

SODIUM PHENOSUCCINATE.—Sodium salt of anthoxyphenylsuccinamic acid.—Analgesic and antipyretic.

STYPTICIN.— $\text{C}_{12}\text{H}_{12}\text{NO}_8 + \text{H}_2\text{O} \cdot \text{HCl}$.—Hemostatic. Dose: 0.03–0.2 gme.

TETANIA.—Tetanotoxin, ptomaines isolated from tetanus cases.

THIOTONE.—Solution ammonium sulphide, used for toning silver-chloride gelatin prints.

THYRADEN.—Concentrated extract of thyroid gland, used against goiter, myxedema, etc.

THYROANTITOXIN.—Crystalline substance from thyroid extract after removal of the albuminoids.— $\text{C}_7\text{H}_{11}\text{N}_2\text{O}_8$.

TRAUMATOL.—Iodocresol, $\text{C}_7\text{H}_7\text{IO}$.—Surgical antiseptic.

TRIBROMSALOL.— $\text{C}_6\text{H}_4 \cdot \text{OH} \cdot \text{COO} \cdot \text{C}_6\text{H}_3\text{Br}_3$.—Intestinal antiseptic, like salol.

TRIPHENIN.— $\text{C}_6\text{H}_4 \cdot \text{C}_6\text{H}_4 \cdot \text{O} \cdot \text{NH} \cdot (\text{CH}_2 \cdot \text{CH}_2 \cdot \text{CO})$.—Antipyretic and antineuralgic. Dose: Antipyr., 0.3–0.6 gme. ($4\frac{1}{2}$ –9 grn.); antineur., 1 gme. (15 grn.).

UROTROPIN.—Hexamethylenetetramine, $\text{C}_6\text{H}_{12}\text{N}_4$.—Uric acid solvent. Dose: 0.5–2 gme. per day.

ZINC SUBGALLATE.—Astringent and antihidrotic. Dose: 0.05–0.25 gme.

ZINCOHEMOL.—Zincated hemol.—Antichlorotic and Antidiarrheic. Dose: 0.5 gme.

Phenosuccin and Sodium Phenosuccinate, Analgesics and Antipyretics.—(Pharm. Post, XXVIII, p. 558)

These are two new remedies said to possess analgesic and antipyretic properties. Phenosuccin is produced by the action of succinic acid upon para-amidophenol; it forms small colorless needles, which are soluble in 83 parts of boiling water and melt at 155°C . (311°F).—The second compound is the sodium salt of anthoxyphenylsuccinamic acid, and is obtained on heating succinamine with sodium hydroxide.

Treuenit, a New Food-preservative.—WOLF (Pharmaceut. Post, XXVIII, p. 559)

Treuenit is described by the author as a new food-preservative, whose chief active constituent is said to be sodium bisulphite ($\text{NaHSO}_4 + \text{H}_2\text{O}$). It is claimed that tainted meat can be brought back to its former condition by the use of this preservative. On account of the large proportion of sodium bisulphite treuenit is believed to contain, the Bavarian Ministry has forbidden its use.

Triphenin, an Antipyretic and Antineuralgic.—J.

VON MERING

J. VON MERING describes triphenin, $\text{C}_6\text{H}_4 \cdot \text{C}_6\text{H}_4 \cdot \text{O} \cdot \text{NH} \cdot (\text{CH}_2 \cdot \text{CH}_2 \cdot \text{CO})$, as a homologue of phenacetin, obtained by heating parphenetidin with tropic acid. It melts at 120°C . (248°F), and is soluble in about 2000 parts of cold water; it is therefore considerably less soluble in water than phenacetin or the other commonly used antipyretics and antineuralgics. The results of numerous experiments undertaken by the author show that triphenin possesses antipyretic and analgesic properties in a marked degree. After the ingestion of triphenin in pyrexia, the temperature falls slowly, reaching its lowest point in about three or four hours, and then gradually rising again. Untoward secondary effects—such as nausea, vomiting, cyanosis, collapse, etc.—the author never observed. In febrile diseases—typhoid fever, pneumonia, pleurisy, influenza, erysipelas, etc.—the ingestion of 0.5 to 0.6 gme. ($7\frac{1}{2}$ to 9 grn.) of the remedy lowers the body temperature by 2° to 3°C . (3.6° to 5.4°F); in the case of phthisical patients VON MERING found that smaller doses (about 0.3 gme.) sufficed to subdue the fever. The analgesic action of triphenin begins about half an hour after the administration of the medicament, and persists for several hours.

In 35 cases of headache, migraine, sciatica, tabetic pain, etc., the remedy proved of great value. To secure its analgesic action, it is necessary to administer it in 1-gme. ($15\frac{1}{2}$ grn.) doses, which dose may be repeated three or four times in the twenty-four hours without fear of producing unpleasant secondary effects. Triphenin is credited with the advantage of acting promptly and, on account of its property of being slowly soluble and slowly assimilable, also mildly. The author asserts that in its action triphenin is not surpassed by any other antineuralgic or antipyretic. The two butyryl- and valeryl-phenetidin compounds, which v. M. has repeatedly tested pharmacologically, are very difficultly soluble, and proved much weaker therapeutically than either triphenin or phenacetin. The formyl derivative of phenetidin, a comparatively readily soluble substance, irritates the mucous membrane of the intestinal tract even when given in doses too small to produce any therapeutic result. In conclusion, the author claims that, of the homologous compounds of phenacetin, triphenin is the only one which is of practical value as an antipyretic and antineuralgic.

SURGERY

OPHTHALMOLOGY, OTOTOLOGY, RHINOLOGY,
LARYNGOLOGY, DERMATOLOGY, ORTHO-
PEDIC AND GENITO-URINARY SURGERY

Edited by SAMUEL LLOYD, M.D.

Instructor in Surgery in the New York POST-GRADUATE MEDICAL SCHOOL AND
HOSPITAL

GENERAL SURGERY

In charge of

B. FARQUHAR CURTIS, M.D., Surgeon to St. Luke's and Cancer
HOSPITALS; WM. B. COLEY, M.D., Surgeon to CANCER HOSPITAL;
and E. M. FOOTE, M.D., Surgeon to RANDALL'S ISLAND HOSPITALS

Studies in Anesthesia and Anesthetics.—KEITH,
Springfield, Mass. (*Boston Med. and Surg. Jour.*,
CXXXIII, No. 22, p. 533)

In the course of an article on this subject the author says that he has seen as many dangerous and unpleasant symptoms follow the administration of ether as chloroform, and possibly more, and that all the unfavorable symptoms with all anesthetics related to the respiration. He concludes as follows:

1. If there is any suspicion of weak heart, get the patient under the influence of digitalis for 24 hours, and give a hypodermatic injection of 4 gme. of the tincture before beginning the inhalation.

2. Every one administering an anesthetic should measure the dose. Fifteen grammes (or $\frac{1}{2}$ oz.) of chloroform are a proper dose to produce anesthesia in an adult, and should be poured on at once, and no more should be used, except as needed to continue the anesthesia.

3. Forty-five grammes (or $1\frac{1}{2}$ oz.) of ether are enough for a woman, and 60 gme. (or 2 oz.) of ether are enough for a man, and should be the charging dose. There may be an exceptional case where even 60 gme. of ether will not subdue a patient, but I should consider such a one not a good subject for ether, and would substitute or add chloroform.

4. The face, pulse, and respiration, in order named, should be watched attentively during chloroform administration, and the respiration and pulse in ether. It is not enough to see that the chest moves: we must hear the air enter the lungs.

5. A good plan is to combine chloroform with ether, especially if one fears to assume the responsibility of using pure chloroform; and 12 gme. (or 3 dr.) of chloroform and 30 gme. (or 1 oz.) of ether are a good charge, and can be depended upon to produce anesthesia. In this way the stage of excitement so common in ether anesthesia is avoided.

6. Withdrawal of the anesthetic, the frequent momentary inversion of the patient, artificial respiration, strychnia, heat, digitalis, the galvanic battery, and sponging or sprinkling of face and breast with ice-water are the means for restoration of function arrested by anesthetics.

Statistics of the Treatment of Aneurisms by Extirpation.—DELBET (*Sem. mdd.*, October 30, 1895, p. 470)

DELBET reports upon the much larger number of cases of aneurism treated by extirpation, and the better results obtained since his study of the subject in 1888. The mortality formerly was between 11 and 12 per cent., but in the 76 cases since reported there is not a single death. Of 109 cases treated by simple ligature, 12 had gangrene; while of the 76 cases extirpated there were only 7 instances of this accident, and in 4 of these the gangrene existed before the operation. Recurrence is also one of the dangers of ligature, but it is much less apt to take place with extirpation—if indeed it is possible.

Two Cases of Hernia of the Vermiform Appendix.

—Bajardi (*Lo Sperimentale*, March 11, 1895, p. 141).

Bajardi reports a case of right inguinal hernia in a child three years of age, containing the vermiform appendix obliterated at its base, and distended by mucus to a cyst resembling a hydrocele of the spermatic cord. It was ligated and removed, and the patient recovered. The second case was in an adult, also operated upon for radical cure of an incompletely reducible hernia. The hernial sac was divided into two sacs; the lower containing the omentum, the upper the appendix. The appendix was freed and returned to the abdominal cavity. The patient recovered. Bajardi could find only about one hundred such cases on record, but was able to add to his own cases three others in the practice of his friends. The first two occurred in operations for radical cure, and the appendix was resected, being adherent in one, and in the other surrounded by a mass of fibrinous exudate. In the third case a large fibro-lipoma had grown from an appendix in a hernial sac.

Tuberculosis of Hernia.—Tenderich (*Deut. Zeit. f. Chir.*, 1895, XLI, p. 220)

Tenderich reports three cases of tuberculosis occurring in herniae, in two cases the hernial sac containing nothing but a serous fluid, and the abdominal peritoneum being tuberculous. Two remained well seven months later; the third died of pulmonary tuberculosis, apparently beginning over two years later, without other symptoms. Altogether, the author was able to find 22 cases of this lesion, but is unable to go further in describing its relations to general peritoneal tuberculosis than to quote Bruns, "that the hernial lesion may be primary, but that as a rule it is combined with general tuberculosis of the peritoneum." The result of treatment is known in 14 cases subjected to operation: 3 died from the operation, 4 recovered but were not followed; 4 remained well for six to nine months, and 3 from one to two years. The great majority of cases were in males, and in inguinal herniae. The diagnosis can seldom be made with certainty, unless there are symptoms of general peritoneal tuberculosis.

Changes in the Remaining Kidney after Nephrectomy.—Enderlin (*Deut. Zeit. f. Chir.*, 1895, XLI, p. 208).

Enderlin experimented upon rabbits, in order to study the effect of nephrectomy upon the remaining kidney, and whether any changes could be found which would explain the diminished quantity of urine excreted at first. He found that the striated arrangement of the granules in the epithelium of the convoluted tubules was lost, as they had a tendency to work toward the lumen of the canal, and that vacuoles appeared in the cells. On the fifth day this condition reached a standstill, and then improved, but on the seventh day there were still some alterations visible. He was fortunate enough to obtain a kidney removed from a woman four hours after death, which took place forty hours after nephrectomy for hydronephrosis. The vena cava was wounded and sutured during the operation. The same changes were found in this kidney. In connection with the suggestion to ligate the ureter and delay the nephrectomy, in order to accustom the other kidney to extra work, a proceeding which Favre found reduced the mortality very much in experiments upon rabbits. Enderlin empha-

sizes that in the case just mentioned death ensued from suppression of urine, in spite of the long-standing hydronephrosis.

Proposed Osteoplastic Operations.—Samfirescou (*Revue de Chirurgie*, 1895, No. 10, p. 838.)

Following the ideas of Gritti and Sabanajeff, two new osteoplastic amputations are proposed, one at the elbow and one at the wrist. At the elbow, anterior and posterior flaps are employed. The joint is opened anteriorly, care being taken not to sever the posterior attachments of the ulna. The ulna is now split from above downward, in the coronal plane, for a distance equal to the diameter of the humeral shaft. This posterior portion of the olecranon is now separated from the ulnar by the saw, and the forearm removed. The humerus is then sawed across about an inch above the epicondyles, and the bone segment from the olecranon, which has remained attached to the triceps tendon, and imbedded in the long posterior flap, is sutured to the humerus, and the wound closed.

In a similar manner an amputation may be made at the wrist, the first metacarpal bone being selected for the bone segment. It is split throughout its whole length, and its posterior half is used. The skin flap in this case is a single one, and is taken from the posterior and external surfaces of the thumb. After section of the articular surfaces of radius and ulna, the metacarpal is sutured in position.

These operations are designated, respectively, humero-ulnar and metacarpo-radio-ulnar osteoplastic amputations. They are designed to give more beautiful and more useful stumps than the methods now in vogue.

NOSE AND THROAT

In charge of
JAMES E. NEWCOMB, M.D., Attending Laryngologist, DEMILT DISPENSARY and in the Out-patient Department of the ROOSEVELT HOSPITAL; Instructor Diseases of Nose and Throat in NEW YORK POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL

The Treatment of Chronic Laryngeal Stenosis.—MASSEI (*Jour. Laryngol.*, IX, 1895, p. 567).

A distinction must be made between pure laryngeal stenoses and those which may be termed hypoglottic. There are constrictions limited to the hypoglottic tract, presenting symptoms of laryngeal stenosis and requiring frequently endolaryngeal treatment. A clinical distinction should always be made between severe stenosis directly dangerous to life and slight cases, allowing time for suitable treatment. Spasm may frequently occur where the actual organic stricture is not far advanced.

As to causation of hypoglottic stenosis, we may enumerate:

- (1) Foreign bodies, which, passing through the larynx in a vertical position, may change this for a horizontal one;
- (2) Tubercle which sometimes passes over the larynx and attacks the subglottic region either as an infra-corditis or by destructive infiltration leading to granulations, adhesions, and bridle strictures;
- (3) Chronic inflammation of the subglottic mucosa;
- (4) Syphilis and rhino-scleroma which are apt to produce thin diaphragms in the upper trachea with round or elliptical openings;
- (5) Growths which arise from the lower aspect of the cords or from the lateral walls of the subglottic space.

As to treatment: Syphilis of the larynx may be cured by general treatment alone. Here we should

employ corrosive sublimate hypodermatically alone or with the iodide internally. Iodine may benefit certain cases of crico-arytenoid joint rheumatism.

In chronic inflammations with narrowing, astringents, by means of brush, sponge, or spray may effect a cure.

Foreign bodies which only partially reduce the glottic aperture can be removed under cocaine by some one of the usual endolaryngeal methods.

Stenosis produced by a chronic (simple or neoplastic) inflammation and unaffected by operative treatment with knives, forceps, or curettes, may yield to dilatation, preferably by intubation.

It is an open question frequently whether we should intubate or tracheotomize. The points to guide our decision are: (1) the form of the stenosis, and (2) the nature of the disease producing it. Often no tube whatever can pass through the deformed opening. If the deformity can be removed sufficiently to allow of tubage, the latter may of course then be done, but, as a primary operation in order to render safe an endangered life, tracheotomy is advisable, and this is often the only rational treatment. It is also often called for in the case of foreign bodies with a large amount of edematous infiltration or severe spasm.

MASSEI is convinced that intubation will succeed more often than tracheotomy in proportion to the curability of the disease. Cancer, tuberculosis, lupus, rhino-scleroma, bilateral paralysis of the psoas indicate tracheotomy: Cancer, when laryngectomy can no longer be performed; in tuberculosis, intubation is only to be performed to save the patient from immediate danger of suffocation. Tracheotomy may be done if general conditions and the pulmonary state permit. When done, great advantage to the general health and to the local disease is generally observed.

In chronic laryngeal stenoses after tracheotomy, intubation is undoubtedly the best mode of dilatation. If a large tube cannot be passed through the constriction we may begin with a common catheter.

The writer's conclusions are as follows:

1. In cases of severe stenosis in which tracheotomy is clearly indicated, but time would not allow of its performance, temporary intubation, provided the form of the stricture allows of the passage of the tube, will render the operation easier, not only by removing the immediate danger of suffocation, but also by fixing the larynx and quieting the circulation.

2. Temporary intubation, done in cases of imminent danger of suffocation, providing the operation is possible, would give time for reflection and later to a more rational treatment and even tracheotomy, if we renounce intralaryngeal treatment and the submitting the patient to a constant supervision by the surgeon, who would be obliged to intubate repeatedly and in haste.

Rhinitis Caseosa.—ARSLAN (*Archiv. Ital. di Otol.*, III, 1895, p. 346)

The writer prefers to style this affection "caseiform purulent rhinitis," and relates an interesting case of a woman aged 29, who complained of pain in a carious molar tooth which was badly extracted, some of the root being left in the gum. Four months later an alveolar abscess discharged at the same place. At the same time there was a profuse purulent flow from the corresponding nostril. This gradually changed its character to a cheesy consistency. Later the opposite nostril also became

clogged. Examination determined the probable existence of a right antral empyema and left septal abscess. Incision of the latter and puncture of the antrum in the inferior meatus gave proof of the correctness of the diagnosis. It is worth noting that the opening of the antrum was not immediately followed by the escape of pus, but the latter was brought away by sterilized syringing. Under the ordinary measures both sides of the nostril became perfectly free from their cheesy contents, and in the course of two months the antrum disease was cured.

ARSLAN passes on to discuss the theories which have prevailed concerning the nature of this peculiar form of rhinitis. Some authors regard it as simply a sequence of other intranasal lesions, as sinus disease, polyp, syphilis, foreign bodies, etc.; while others regard it as a distinct morbid entity entitled to special consideration. A. himself is of the former opinion. It seems rather striking that a tumefaction of the nasal septum (of all degrees, from mere swelling up to pus formation) is present in nearly all the cases reported.

Two conditions are premised as being necessary to this condition of caseous rhinitis. There must be a purulent discharge, and then at least some partial obstacle to its escape. Naturally there would ensue a thickening of the mass up to a grumous consistence from the gradual leakage away of its more liquid elements. The permanency of this cheesy mass would eventually cause it to act somewhat as a foreign body, and to provoke secondary lesions of the nasal cavity and its lining. It would become a favorable nidus for germ development.

It is frequently found that the removal of the caseous deposits reveals the existence of denuded bone. Examination in ARSLAN's case showed the deposits to consist mainly of pus cells, most of which were partially destroyed. Degenerated epithelia were also present, also certain needle-crystals, cocci of putrefaction, and fungoid elements. No characteristic microbic elements have ever been isolated from these cases. In fact, it almost seems as if the disease had received in medical literature more attention than it really deserves. There is no evidence that it is anything more than pent-up pus undergoing the natural solidifying changes.

GENITO-URINARY

In charge of

GEORGE KNOWLES SWINBURNE, M.D., Surgeon to the Good Samaritan Dispensary; Instructor in surgery at New York Post-Graduate Medical School and Hospital, etc.

The Diagnosis of Renal Calculus in Women.—

KELLY, Baltimore (*Med. News*, XLVII, No. 1194, p. 593)

The presence of pus in the urine is one of the most characteristic signs of calculus in the pelvis of the kidney, but from the mixed urine in the bladder it is impossible to say from which side the pus comes; or if pain and swelling point distinctly to one side, it cannot be asserted, after any ordinary examination, that the other side is not affected too. The author employs his method of direct catheterization of the ureter to determine the side from which pus comes. In order to secure a sufficient quantity of urine, the catheter must be retained from one-quarter of an hour to several hours. He employs flexible catheters instead of the metallic ones that he previously used. The end is blunt and conical, and has a large oval eye 2 ctm. back of the extremity. When it is too flexible to be introduced

into the ureter a wire stylet is employed, and withdrawn when the catheter passes up the ureter.

The urine from the two kidneys can then be collected in separate tubes, care being taken to mark the catheter coming from the right and left ureters, so that no confusion may arise in this regard. Information from a microscopical examination of these separate specimens reveals the condition of each kidney. The author has also occasionally employed the following method in making diagnosis of renal calculus. He employs a renal catheter $1\frac{1}{2}$ to $2\frac{1}{2}$ mm. in diameter, and 50 ctm. long. This is introduced in the usual way, and pushed upward as far as it can go. Usually 13 to 17 ctm. of the catheter are left projecting from the ureter. An airtight syringe with a tapering point is then connected by means of a fine rubber tubing with the end of the catheter, and separate suction is exercised.

If pus is present it is then brought down at once into the syringe, and begins to flow long before it would naturally without suction. Suction is continued until the renal pelvis is emptied, and the fluid obtained is placed in a conical graduate for careful examination. In three cases he has been able to diagnosticate the presence of renal calculi by discovering in this fluid a minute dark brown or black sediment, consisting of small pieces of material about $\frac{1}{2}$ mm. or less in diameter. Under the microscope these were found to be composed of uric acid.

In a patient upon whom this method of diagnosis was employed a piece of a renal calculus was found wedged in the eye of the catheter. Upon its withdrawal, the end of the catheter was found scratched and marked by impressions from the stones. In consequence of these he has devised a hard-rubber renal bougie, 2 mm. in diameter, with an olive-point 3×2 mm, notched on two sides, the notch running lengthwise; some dental wax is melted, so as to coat the end of the bougie, giving it a smooth, glossy, impressionable point, which is not altered by any kind of contact with the soft tissues, but is easily scratched by the stone. He says he has been able by the means of these cases to establish the following points:

1. By renal catheters, to demonstrate a unilateral or a bilateral pyelitis, and the grade of each.
2. By suction at the outer end of the catheter, to bring down bits of stone for microscopic and micro-chemic examination.
3. The color of these pieces of stone signified long retention in the pelvis of the kidney.
4. A piece of stone, black and rounded on one side, and light colored and jagged on the opposite, was evidently broken off from a large calculus and got into the eye of the catheter by friction and suction.
5. The bruised end of the catheter was microscopical evidence of violent contact with a hard body.

DERMATOLOGY*

In charge of

HENRY W. STELWAGON, M.D.

Varicose Ulcers and the Nervous System.—DU CASTEL (*Bull. mtd.*, 1895, IX, p. 671)

The case mentioned by the author is that of a young woman 22 years of age, whose parents were healthy and who had a good constitution; who had at the age of 6 years had the measles, and between the

* The editor acknowledges his indebtedness to Dr. E. H. KNIGHT for assistance in the preparation of this report.

ages of 7 and 10 years had suffered from intense headaches. In 1892 the patient had a painless edema of the legs. Some time after this an eczema of the face had appeared, and the next year a general eczema. Since this time the patient had not felt strong. In the evening there is a slight edema of the legs. Fifteen months ago there arose upon the legs an eruption characterized by the production of bullæ, the eruption being preceded by an intense pruritus. Some of the bullæ were followed by ulceration, others not. At present, bullæ with ulcers are found upon the legs. There is little sign of varicose veins, no edema, the sensibility and patellar reflexes normal, plantar reflexes decreased, no visceral lesion. Left lateral scoliosis of the inferior cervical region. The author pronounces the case one of varicose ulcer and states the following facts: It has been shown by various authors that in patients with varicose ulcers one meets with an inflammation of the nerve-filaments *near* the ulcer and on the rest of the extremity affected. The author questions if the lesion of the nerve precedes the venous one or is the cause of it, or if the alteration in the venous circulation is the cause of the nervous lesion. Pathological anatomy has not demonstrated the order of the lesion as yet. Looking at the affair clinically the following facts are noticed: Ulcers are found which are preceded by bullæ; bullæ form which do not proceed to ulceration. The ulcers are not deep, and lack many of the characteristics of the ordinary varicose ulcer. The author then speaks of the varieties of edema, which are produced under the influence of the nervous system, and questions if bullæ and ulcerations may not occur in this way. Ulcerated and gangrenous bullæ have followed wounds of nerves, as shown by WEIR MITCHELL, the phenomena occurring two or three weeks after the traumatism. These lesions have also been observed in various diseases of the nervous system. The author favors the idea of this being an affection of the peripheral nerves, and questions if the trouble be due to the exanthem of youth, or if the scoliosis present has any share in producing the lesion. Internal medication is indicated in these cases, combined with local treatment. The author mentions potassium iodide, strychnine, arsenic, prolonged bathing, sojourn at mineral spas, electricity.

Vaccination Psoriasis.—(*Lyon méd.*, 1895, XXVII, p. 49)

A man 22 years old was vaccinated, the punctures at first following the usual course, but instead of terminating in the usual way dried in the form of persistent and recurring crusts. Soon lesions appeared on other parts of the body. They were typical lesions of psoriasis. The question of etiology is discussed, if it be due to a diathesis, if it is a trophoneurosis, or if it is parasitic in origin. There is no reason to suppose that it was inoculated by the virus or from others vaccinated at the same time. There was an absence of syphilitic history, but the patient was alcoholic and also had a skin which was susceptible to traumatism.

The Treatment of Pediculosis Vestimentorum.—W. ALLAN JAMIESON, Edinburgh (*Brit. Jour. Dermat.*, 1895, VII, p. 248)

In hospital cases the treatment of cases of pediculosis vestimentorum is an easy matter. In private practice, however, it is, in the first place, difficult at times to make the diagnosis. The patient presents

himself in clean linen and examination of the clothes has to be carried out rapidly, otherwise the patient may be suspicious or shocked. The author suggests that in some cases the ova may be found clinging to the lanugo hairs and may be detected with a lens. In old and atrophic skins the diagnosis often has to be made from the scratch marks, alcoholism favoring the diagnosis, as these patients are usually careless as to their condition. The treatment offered is petroleum in the form of a soap, the lather being allowed to dry on the skin, this killing the ova. To abolish the parasites themselves a piece of roll sulphur, the size of a pigeon's or bantam's egg, is inclosed in a muslin bag and worn next to the skin, the sulphur subliming at the temperature of the body, imperceptibly impregnating the clothes and rendering them unsuitable for the existence of the parasites.

Ammoniated Collodion for the Bites of Insects.—

(*Le Moniteur therap.*, 1895, XXII, p. 160)

Ammonia	40 gtt.
Collodion.....	3 gme.
Salicylic Acid.....	30 ctg.

Apply several drops of this solution upon the parts stung or bitten.

ORTHOPEDIC

In charge of

T. HALSTED MYERS, M.D.

Attending Orthopedic Surgeon to ST LUKE'S HOSPITAL; Assistant Surgeon to NEW YORK ORTHOPEDIC HOSPITAL

Auscultation of Joints.—Richardson (*Asclepiad*, XI, No. 43, p. 270)

The author recommends auscultation of joints as a means of diagnosis. He prefers the double stethoscope; the mouthpiece should not be over three-quarters of an inch in diameter and should be covered at its edge with rubber.

Auscultation of the healthy joint of a young person yields no sound or movement whatever. If movement be made in such a manner as to bring the end of the movable bone with some force into collision with the joint or bone that opposes it in the socket, no sound will be heard except a very gentle soft percussion sound. When the sound is produced it may be called a cushioned sound. It ceases the moment the action that produced it is slowly carried out without pressure. A very slight derangement within the joint itself—less than a friction that produces impediment of motion, much less than an impediment that gives rise to pain—leads, however, to sounds that are distinguishable, the abnormal sound increasing in degree as the impediment within the joint is intensified or modified. Five modifications of joint sounds are described, simple dry friction sound, dry grating sound, coarse grating sound, moist crepitant sound, and coarse crepitant sound.

Fragilitas Ossium; Disunion.—(*Med. Rec.*, No. 1309, p. 823.)

At the London Clinical Society there was lately shown a curious case of fragilitas ossium, with a record of several spontaneous fractures, in all of which, except one, firm union had occurred. In that one (the femur), after unnecessary violence at the hands of a bone-setter, no union took place. Later, two of the united fractures became again disunited, and one of them became the seat of sarcoma. Some more or less similar cases were mentioned, but none in which disunion had taken place after years of union.

OBSTETRICS; GYNECOLOGY; PEDIATRICS

In charge of T. S. SOUTHWORTH, M.D.

Pathologist to NURSERY AND CHILD'S HOSPITAL; Lecturer on Diseases of Children
at the NEW YORK POLYCLINIC

Birth with Kyphotic Pelves.—R. KLEIN, of München (*Arch. f. Gyn.*, L, No. 1, p. 1)

The greater part of the archive is given up to this subject. Eighty-five cases are reported in full, and together with other cases are analyzed, and elaborate tables of statistics made.

The following are the conclusions drawn from consideration of the statistics:

1. Birth in patients with kyphotic pelves is a relatively seldom occurrence, probably not oftener than once in 6000 cases.

2. The kyphosis is usually acquired during childhood through caries of the vertebræ. Lumbo-sacral kyphosis is the most frequent, occurring as often as the lumbar and lumbo-dorsal varieties combined.

The chief deformity is a narrowing of the transverse diameter of the pelvis, especially at the outlet, due to an approximation of the tuberosities of the ischii. The true conjugate is usually longer than normal, from tilting back of the upper end of the sacrum. In rare cases the true conjugate is shortened by a projection forward of one of the vertebræ. In 30 per cent. of the cases the pelvis is generally contracted.

There was usually no difficulties during pregnancy, and about two-thirds of the cases terminated at the normal time. Half of the remainder had premature labor brought on.

As regards presentation and position it was found that the head presented in about 94 per cent., the breech in 6 per cent., of the cases. The first and second positions in vertex presentations were equally frequent, due, the author thinks, to a more or less pendulous abdomen, which turns the back of the child directly anterior, instead of allowing it to take its normal position a little to the right of the spine. In about one-third of the cases the back was directed posteriorly.

The head usually enters the pelvis in the oblique diameter, sometimes in the transverse, but never in the conjugate. It descends in the position in which it enters the pelvis until it reaches the outlet, and then turns to the anterior posterior diameter. In posterior positions the presenting part rarely ever rotates to the front. In a number of instances an anterior position has been seen to rotate to the rear.

Face presentations were observed in 4.2 per cent. of the cases, and it was found that with the chin anterior delivery took place more easily than in any other position. The mortality was about half that of vertex presentations.

The prognosis is much more grave than in normal cases. Statistics show 6.2 per cent. of mortality to the mother in favorable cases, and 17 per cent. in unfavorable ones. Mortality of the children reached about 40 per cent.

Therapy depends entirely upon the conditions present and the time when the patients are first seen. When seen early, and the transverse diameter at the outlet is shortened, premature delivery should be induced, but not earlier than the thirty-fourth week. During labor the forceps are indicated in nearly half of the cases. Podalic version should never be per-

formed. With a distance of from 5.7 to 8 cm. between the tuberosities of the ischii, symphysiotomy is indicated. A distance of 5.5 cm. or less calls for cesarian section.

Compound Tincture of Benzoin in Pelvic Inflammatory Exudates.—BLOOM, of Philadelphia (*Phila. Polyclinic*)

Dr. BLOOM has found that in some cases of pelvic inflammatory exudation the very best local application is compound tincture of benzoin painted freely over the entire vaginal vault, after thoroughly cleansing and drying the part to get rid of the mucus. The good effect is much enhanced by making the application in the knee-chest position.

Sterility.—GRAEFE, of Halle (*Centralblatt für Gynäk.*, No. 49, 1895, p. 1296)

The causes of sterility are given as: 1. Anomalies of the hymen or malformation of the genital tract. A very large vagina can also be a cause of sterility as the sperma flows out immediately after coitus. 2. Vaginismus. 3. Excessive acid reaction of the vaginal mucus which causes the spermatozoa to lose the power of motion. 4. Narrow external or internal os, ante flexion, retro flexion, endometritis, gonorrhea, especially with involvement of the adnexa, neoplasms. 5. Among constitutional diseases are mentioned tuberculosis, syphilis, chlorosis, and obesity.

Nothing new in treatment is mentioned.

Facultative sterility is discussed, and it is pointed out that the health of the wife, as well as social conditions, often makes an increase in the family undesirable. Interrupted coitus is not desirable, on account of neurasthenia, which it nearly always induces. Occlusion pessaries are also unsatisfactory. The condom seems to be the best method devised as yet.

One should not neglect to examine the husband in all cases of sterility in which no lesion of the genitals of the female is found. In half of these cases the trouble will be found to be due to the male.

Further Observations on the Effect of Influenza on the Female Sexual Organs.—R. MULLER, of München (*Münch. med. Wochenschr.*, 1895, No. 41).

The author has observed 157 cases of influenza in women, 21 of whom were pregnant. Among those pregnant only 4 carried their child to term; the other 17 aborted or gave birth to premature children.

The 138 women not pregnant with three exceptions had symptoms referable to the sexual organs, either menorrhagia, metrorrhagia, or exacerbation of existing trouble. All patients in the puerperium had protracted bloody lochia. He thinks that influenza affects the genital organs in a large majority of cases, resembling in this respect cholera, scarlet fever, and other contagious diseases.

In some cases symptoms of chronic endometritis persist after the acute symptoms have passed, but this rarely occurs if the patient receives proper care.

The therapy must be directed to the constitutional disease. Ergot and hydrastis give a little relief from hemorrhage, but are often employed without success.

Massage of the uterus gives the best result in the relief of pain, but should not be attempted before the fever has subsided.

SOCIETY MEETINGS

NEW YORK ACADEMY OF MEDICINE

SECTION ON OPHTHALMOLOGY AND OTOTOLOGY

December 16, 1895

JOSEPH A. ANDREWS, M.D., Chairman

Recurring Monocular Retinal Hemorrhage from Heart Disease; Death

Dr. DAVID WEBSTER: I desire to report the following remarkable case: E. J. W—, an engineer, first consulted me on May 17, 1890. He was then 51 years of age, and married. He complained that it was "hard for him to get a focus on anything," but he had no pain except from over-use of his eyes in reading. R. V. was $\frac{20}{100}$ and L. V. $\frac{20}{100}$. I prescribed the proper glasses for him for use in the distance and in the near, and did not see him again until Oct. 31, 1894, when he stated that about a month previously, after hard nightwork, he had suddenly observed floating spots and a smudge in the field of vision of the right eye. He had not used tobacco for ten years, and had never been much addicted to the use of alcohol. He is not rheumatic. Examination showed R. V. $\frac{20}{100}$, not improved by glasses; and L. V. $\frac{20}{100}$, $\frac{20}{100}$ with his glass. The right visual field was of normal size, with a large central scotoma. Color perception was normal. The ophthalmoscope showed a very large retinal hemorrhage near the right macula, and several smaller ones above and below this. I prescribed rest for the eyes, and internally the bichloride of mercury. About two months later it was found that the large hemorrhage was much smaller, and the smaller ones had entirely disappeared. He steadily improved until all evidence of his retinal affection had disappeared. A distinguished consultant of this city who examined him reported that there was cardiac insufficiency, probably dating back several years; that the heart was enlarged and rapid-acting, and that the specimens of his urine that had been examined had given no evidence of kidney disease. When seen by me last April he looked pale and exhausted, and his breathing was difficult. He stated that on the previous morning he had awakened with a fixed scotoma before the right eye, and examination showed another, but smaller, hemorrhage near the right macula. When seen again by me about six weeks later I found that under the use of codeine, nitroglycerin, and iodide of potassium, with relief from work and responsibility, his general condition had improved, and the only trace of the retinal hemorrhage was a slight pigmentation. He died suddenly last August, I believe, from heart disease. Where there is kidney disease, there is often resultant heart disease and retinal hemorrhages, but I think it is comparatively rare to find retinal hemorrhages from heart disease alone.

The Stacke Operation for the Cure of Chronic Otorrhea

Dr. W. H. BATES read a paper on this subject. [See page 64.]

Dr. H. KNAPP: I wish to congratulate Dr. BATES on his excellent results. I have not had much experience in intratympanic operations, but I have had some experience in mastoid and cranial complications of tympanic disease, on which I have operated by the SCHWARTZ modification of STACKE's operation. When the integument of the canal has to be

detached and the mastoid is involved, I believe it is better to begin with the mastoid and go directly into the antrum, which is the center of the whole campaign. It often happens in both acute and chronic cases that the antrum difficulty is more or less cured, and then on going upward, downward, or backward one finds a canal leading to other foci of suppuration. The antrum is very easily reached; the antrum pit can be readily felt in almost every person, even in children that have not yet any mastoid cells. Having once reached the antrum it is easy to find the antrum canal—the *aditus ad antrum*. When we pass a probe through the antrum canal into the attic we are perfectly sure that we are not going to wound the facial nerve, which is on the inner side of the probe. Over the probe we can chisel away the posterior osseous canal as much as we may desire, without doing injury to important adjacent structures. I have never had facial paralysis following this operation. In one case there was some twitching of the face, but no paralysis after the operation. I always tell my assistants to watch for this twitching of the face, and I desist from operating on a spot from which the twitching was elicited. If it is necessary to gain more space the integument of the canal may be attacked and a part or the whole of the posterior wall chiseled away. This is usually better than to begin the detachment of the wall at once. In the acute cases there should not be the least doubt about the desirability of this method, and it is usually also the best operation for the chronic cases. STACKE introduced his probe "protector" from the antrum canal into the antrum itself, but this seems to be much more difficult than the method I have described.

Dr. RALPH E. SWINBURNE: The only operations on the mastoid that I have done are the usual ones in acute conditions or in cases in which the cerebral lesions were imminent. The operation, however, seems to be simply a natural adaptation of good surgical principles, and appears to be devoid of any serious danger.

The Chairman, Dr. ANDREWS: I would like to know the cause of death in the fatal case reported in the paper.

Dr. BATES: From a study of the symptoms presented in that case, Dr. E. B. DENCH, who saw this case with me in consultation, expressed the opinion that the patient was suffering from some brain tumor. This man had had a discharge all his life, and I previously removed the ossicles and drum membrane to stop the discharge. He had been temporarily relieved by this. The man's habits had not been very good. There was nothing definite to indicate that there was an abscess of the brain. There was, however, some tenderness and swelling over the jugular vein.

Dr. H. KNAPP: From several fatal cases I have observed in life and post mortem, I think that in all probability the case was one of extradural abscess ending in meningitis.

SECTION ON LARYNGOLOGY AND RHINOLOGY

December 18, 1895

Dr. D. BRYSON DELAVAN, Chairman

Instruments

Dr. H. B. DOUGLASS exhibited a probe-pointed tonsillar knife devised by himself for the purpose of severing adhesions of the tonsils to the anterior pillars and for incising crypts of the tonsils. He also showed a nasal speculum which has a clamp attached

which makes it self-retaining. The instruments are made by the Ford Instrument Company.

Dr. L. A. COFFIN exhibited Emmet's full-curved right-and-left scissors, which he stated he has found very useful for the purpose of separating the tonsils from the anterior pillars.

Dr. L. F. MIAL exhibited a nasal saw devised by himself and made by the Ford Instrument Company. It differs from the instruments now on the market in having smaller teeth, and the saw itself is slightly curved and cuts both on the push and pull.

The Chairman, Dr. DELAVAN: I have used this saw with great satisfaction, and regard it as the best of its kind. Its small size enables it to be introduced into the smallest sinus, and it cuts with admirable precision and speed.

A Case of Acromegaly with Laryngeal and Pharyngeal Symptoms

Dr. W. F. CHAPPELL: I expected to show this patient to-night, but regret to state that I am unable to do so, as he died a few days ago during an attack of dyspnea, to which he was subject. The patient came under my observation on November 27, 1895, complaining of pain in the left side of the nose and slight difficulty in breathing. Dr. J. A. BOOTH saw the patient with me, and took some photographs, which he will afterward exhibit. These show the general features of the case, which was clearly one of acromegaly. I will confine myself to the condition of the nose and throat.

An examination showed that the inferior turbinated bodies were enormously enlarged; the other structures in the nasal cavity appeared normal. The anterior and posterior pillars, the soft palate, and the uvula were much thickened; also the tonsils and their capsules. The lingual glands were much hypertrophied. An external examination showed that the larynx was very much enlarged. The epiglottis was thickened. The arytenoid cartilages and the ventricular bands were enlarged. The opening between the vocal cords was very small. While the patient remained quiet, respiration was only slightly impaired, but excitement produced labored breathing and a crowing sound during both expiration and inspiration. During one of these attacks of dyspnea the patient died.

Dr. J. A. BOOTH: The patient referred to by Dr. CHAPPELL came under my observation on November 29. He presented many of the typical symptoms of acromegaly, both subjective and objective. I was unable to secure an autopsy.

A Case of Fatal Pharyngeal Hemorrhage

Dr. G. E. BREWER: The patient was a well-developed, vigorous young man, who recently developed symptoms of an ordinary sore throat. An inspection showed some redness and swelling in the region of the left tonsil. There was pain on swallowing. The symptoms increased in severity, and the presence of a peritonsillar phlegmon was suspected. The case was regarded as a mild quinsy. A day or two later spontaneous rupture occurred, followed by a small amount of hemorrhage. The inflammatory symptoms subsided, but the hemorrhage recurred from time to time. The man felt well enough to go to work, and while sitting in his office a severe hemorrhage occurred which resulted in syncope. It ceased spontaneously. That evening, when I saw him for the first time, his pulse was 120; temperature, 100.5. An inspection of the throat showed that the region of the left tonsil was slightly more swollen and congested than that on the opposite side.

A small clot of blood was observed adherent to the posterior pillar; this was supposed to be the origin of the hemorrhage. Absolute rest in bed was advised, and a 5-volume peroxide of hydrogen solution ordered, to be used in case of further hemorrhage. The following morning his pulse and temperature were normal. The nasal cavities were now examined and were found to be apparently normal. On the posterior surface of the soft palate was a small, granulating surface covered by a firm clot of blood. Every other source of hemorrhage was excluded. Five hours after this examination, without apparent exciting cause and while the patient was resting quietly in bed, a severe hemorrhage occurred which was checked by the peroxide of hydrogen. About thirty-six hours later he had another, which was also promptly checked. A pad was now devised by means of which firm pressure was made over the bleeding point. For six hours after this the patient did well; he then had a fit of coughing which was followed by a fatal hemorrhage. I have been unable to find in literature the record of any case similar to this.

Dr. JONATHAN WRIGHT: Last winter a woman was presented to the section who had a pulsating tumor of the tonsil which was supposed to be an aneurism.

Dr. CHARLES A. BUCKLIN: I saw the patient referred to by Dr. BREWER, before he came under the latter's observation. While examining him, I saw bright blood oozing from the region of the sphenoidal opening; on wiping off this blood, it rapidly reappeared. I am inclined to think that the hemorrhages in this case came from the sphenoidal cavity.

The Chairman, Dr. DELAVAN: It is certainly very startling to learn that a case of this kind should result fatally. Yet we know that fatal hemorrhage may occur after cutting operations on the nose, and we should keep this fact in mind.

Dr. BREWER: I saw no evidences of any sphenoidal disease. I would like to ask whether any of the members present have seen violent arterial hemorrhages arise from chronic disease of the sphenoidal sinus.

Dr. J. W. GLEITSMANN: I have seen violent hemorrhage follow an attempt to get an opening into the sphenoidal sinus. I believe I succeeded in getting into the sinus, as my probe entered four inches. A few hours after the operation the patient had a violent hemorrhage, which I think must have come from that region. Of course I am not positive that the blood came from the sinus proper.

Dr. ROBERT C. MYLES: I have seen a case in which a severe hemorrhage followed an attempt to remove a part of the sphenoidal-sinus wall. This may have come from one of the palatine arteries or from the cavernous sinus. As regards the distance from the opening of the nose to the sphenoidal cells, I think it varies only a little in different heads. The sphenoidal cells are a few millimeters farther forward in some persons than in others. The average distance to the anterior upper wall I would put at two and seven-eighths to three inches, and to the posterior wall four inches, or perhaps a trifle over.

Dr. WRIGHT: I have recently made some measurements in eight cases to ascertain the distance from the external opening of the nose to the sphenoidal cavity. They all measured from two and one-half to three inches to the anterior wall and three and one-half inches to the posterior wall. The measurements were made from the outside of the soft tissues covering the nasal spine.

Dr. GLEITSMANN: I cannot agree with Dr. WRIGHT. I have shown a patient here and I have seen other

on whom the probe could be passed into the sphenoidal sinus for a distance of from three and one-half to four inches. The same measurements have been obtained by GREENWALD, of Munich, after an extensive series of experiments, and they have been corroborated by others.

A Case of Empyema and Polypoid Degeneration of the Frontal Sinuses, Cured by Double External Operation and Packing

Dr. ROBERT C. MYLES: J. M., male, age 27 years, first consulted me in September, 1893. He gave a history of extreme suffering, that had existed more than twelve years. His principal symptoms were headaches, a nervous and unsettled mental condition, sleeplessness, nasal catarrh, a tickling sensation in the throat, and a great deal of sputa, most of which came up from the bronchi in the shape of grayish and greenish lumps. He had been under the care of a number of eminent physicians and surgeons, but their treatment had never been directed in an active manner to the nasal cavities. He was given morphine until he had almost acquired the habit. The patient then resorted to the excessive use of alcoholic stimulants in order to obtund the pain.

An examination demonstrated polypi in both middle meati, with muco-pus issuing from both anterior ethmoidal cells, from both frontal sinuses, from the antrums of Highmore and the posterior ethmoidal cells.

I removed the polypi, passed the smallest sized curette into the frontal sinuses, irrigated the antrums as well as the frontal sinuses and anterior ethmoidal cells by means of silver tubes, and for a while the patient experienced great relief. Then the frontal headaches returned with great severity.

On November 10, 1893, I performed an improved frontal-sinus operation, as follows: The patient being under ether, an incision was made starting over the right nasal bone and continued upward across the articulation of the nasal and frontal bones to the middle of the space from which the eyebrows grow, on the supra-orbital ridges; from this point, which was about 12 mm. from the median line of the skull, the incision was carried outward to within 2 mm. of the supra-orbital notch; from here, another incision, at right angles to the former, was carried upward on the forehead for a distance of about 15 mm. After exposing the bone and checking the hemorrhage, which was done by compression, an opening was chiseled into the frontal sinus, commencing about 12 mm. to the right of the median line of the frontal bone. The opening was about 12 mm. in diameter. The frontal sinus was found to be filled with polypi, granulation tissue, and pus; it was carefully curetted, and the infundibulum was enlarged. The incision over the brow was brought together with sutures; it united by first intention and without scarring. In making the opening, care was taken to remove only the under surface of the supra-orbital ridge, and that no injury be done to the superior oblique muscle. The cavity was packed with iodoform gauze for a month, after which it gradually healed. The patient has been free from discharge and pain in that sinus since that time. The small scar is not objectionable. I subsequently opened the antrum through the malar ridge and curetted it. The cell was kept open with rubber tubes for several months. No secretion can be detected coming from the hiatus now.

In the summer of 1894 I removed the middle turbinate on the left, cut into the anterior ethmoid cells through the floors, and curetted and irrigated them; also the left frontal sinus. Subsequently the left

frontal sinus commenced to discharge muco-pus rather actively, and the patient complained of headaches on that side. In June, 1895, the left frontal sinus was opened, in a manner similar to that described above; polypi were found growing on different portions of its walls and the cavity contained muco-pus. I enlarged the opening into the nose by drawing a piece of gauze through the infundibulum, and packed the cavity for a month. Subsequently I used a tube, and occasionally curetted granulations and small polypi which seemed to develop in the crevices. The wound gradually healed, and he has since been free from frontal headaches. This operation caused only a slight marring of his facial expression. Not long since I removed the floor of the posterior ethmoid cells on the left side, and curetted some polypi which were found there. There are still some polypi to be seen within the cells through the aperture which I have made in their floors. I intend in the near future to remove the floors of the right posterior ethmoid cells.

A Case of Central Cleft of the Soft Palate

Dr. MYLES: A. G., male, aged 21 years, first came under my observation in October, 1891. He was suffering from a central cleft of the soft palate, which extended to the bone. His mumbling words could only occasionally be understood, and on account of his defective speech he had been unable to obtain a business position. He applied for treatment both in England and America, but this was refused on account of the slight hope of success. On October 13, 1891, the man was put under ether; the edges of the fissure were then pared and an incision made on either side, following the margins of the hard palate, nearly to the pterygoid plates. This was done after the method which, I believe, was devised by Dr. MCBURNEY. The object was to relieve the tension which the muscular filaments would exert on the stitches. I then passed several sutures about 6 or 8 mm. from the margin of the cleft, and brought them through the opposite side. Notwithstanding these precautions, I noticed a few days later that the operation was presenting the appearance of a failure. Under cocaine anesthesia I then passed a curved needle through the tissues, as on the previous occasion, only the stitches were inserted much farther from the margins. These were intended as supplementary stitches, and produced the very satisfactory result which you see this evening. The young man's speech has been wonderfully improved under certain exercises advocated by instructors in vocal culture. Two interesting points in connection with the case are the remarkable development of the constrictor palato-pharyngis muscle, which I do not believe is mentioned in books on anatomy, and the extremely elongated tip of the inferior turbinate.

Seven Cases of Goiter in the Same Family

Dr. L. F. MIAL: This family came under my notice about two years ago. I first saw the youngest sister, 10 years old, who had bilateral enlargement of the thyroid, both lobes being equally enlarged. She informed me that three of her sisters, one brother, her mother, and grandmother presented a similar condition. The children were all born in Berlin, Germany, and came to this country about six years ago. In one of the sisters the goiter developed after her arrival here. The following treatment was employed, which seemed to work well in two of the cases; in one case the goiter disappeared entirely and remained absent for six months: A salve consisting of tincture of iodine, white-precipi-

tate ointment, and vaselin was spread on a soft cloth and continuously applied around the neck. The strength of the ointment was varied according to the age and susceptibility of the patient. In addition to this, the syrup of ferric iodide was given internally.

The Chairman, Dr. DELAVAN: While driving through a part of Switzerland some years ago I counted 39 cases of goiter on the road from Geneva to Chamouni.

Dr. WRIGHT: I have seen quite a number of persons with goiter hailing from the northern part of this State and southern Canada, in the neighborhood of Niagara.

A Case of Multiple Syphilitic Lesions

Dr. JAMES E. NEWCOMB: This woman is 40 years old; her father died of phthisis; otherwise her family history is negative. She was married when she was 16 years of age, and had a miscarriage at the second month during the first year of married life. She presented soon after the usual symptoms of syphilis, for which she was only subjected to irregular and desultory treatment. About eighteen months ago she lost some pieces of bone from the nose, which from that time on began to fall in. At the present time there is extensive destruction of the nasal tissues. The uvula and a part of the soft palate are also destroyed, the remainder being adherent to the posterior pharyngeal wall. The epiglottis is involved and bent on itself. She apparently has no stenosis of the larynx proper. Four or five years ago she had some dyspnea, which occasionally recurs.

A Case for Diagnosis

Dr. QUINLAN: This man is about forty years old; an Italian by birth. He has a growth involving the bridge of the nose, which from its feel and appearance is possibly an osteo-sarcoma. It is gradually increasing in size, markedly so during the past two weeks. He complains of more or less frontal headache, and at times impairment of vision. There is almost complete stenosis of the anterior nares.

A Case of Papillomata of the Larynx Cured by Applications of Absolute Alcohol

Dr. DELAVAN: The patient, a lady of 55 years of age, was first seen last May. She had been suffering for two years with progressive aphonia, which had become complete. She stated that she was subject to frequent colds, and that now and then she expectorated small, pink-colored, fleshy masses. The laryngoscope revealed a collection of large, papillomatous masses situated in the anterior half of the larynx and especially involving the left vocal band. The right was partly covered also. The use of instruments was not desirable in this case, because the growth, although at first sight apparently typical of papilloma, was nevertheless quite extensive, and for several reasons there was some question regarding its true character. A spray of alcohol was applied by the patient herself six times daily, and in a very short time improvement was noticed. The voice began to be better. The growths shrunk in size, and several pedunculated masses came away. This treatment was continued until about the first of October, when no trace of papilloma could be found. The voice and larynx were absolutely normal.

In several other cases of this kind in which the same treatment is being employed all are improving, although not yet far enough advanced to report them as cured. We have been told that applications of alcohol to certain nasal conditions is beneficial, and there seems to be no reason to doubt its efficacy

in the case reported. It is possible that this also gives us a method of differentiating between a small papilloma and a malignant growth of the larynx. Of course we could not postpone the diagnosis of the latter condition for any great length of time.

Abscess of the Nasal Septum

DWIGHT L. HUBBARD: The patient was a male who came under observation about fifteen months ago, presenting two bulging projections which to the inexperienced eye resembled hypertrophied inferior turbinated bodies. The man had passed through the hands of several physicians, who had cauterized the masses without benefit. On examination the mass proved to be an abscess of the cartilaginous septum; this was incised, evacuating about two drams of pus. After washing out the pus cavity I inserted a perforated cork splint on the right side (the incision having been made on the opposite side), and packed the nostril with iodoform gauze. A narrower cork splint was then put in on the left side. This was removed every day, while the one on the right side was left undisturbed for a week. The man made a rapid recovery.

Dr. GLEITSMANN: A very similar case to the one related by Dr. HUBBARD recently came under my observation. The patient was a woman 35 years old, who fell and sustained some injury to her nose. She was taken to the German Hospital, where Dr. WILLY MEYER operated on her, straightening the nasal bones, etc. It was afterward noticed that the woman could not breathe through her nose, and upon examination I found an enormous abscess of the septum, extending vertically about an inch and a half and horizontally about one inch. The abscess was incised and curetted, and healed without any trouble within ten days.

Dr. WRIGHT: In one case of abscess of the nose coming under my observation the entire mucous membrane of the septum seemed to be undermined by the abscess. They all heal promptly when incised, with no further treatment.

Dr. C. C. RICE: I think abscesses of the septum are more apt to follow the use of the galvano-cautery than the knife or other cutting instruments. I have seen several such cases.

GENERAL MEETING

December 19, 1895

JOSEPH D. BRYANT, M.D., President

Vaginal Versus Abdominal Section

Dr. W. M. POLK: The rapid evolution of the surgery of the female pelvic organs is one of the great things of this century. The advocacy of the vaginal method is most persistent and cannot be ignored. Vaginal section has already been injured by the exaggerated claims made in its behalf. It is folly to talk of driving abdominal section from the field with it, for the reason that conditions will always occur which can be so much better met by the former. I think also that vaginal section will always remain subordinate to the abdominal, even though it diminish the frequency of the latter by one-half or two-thirds. There are cases supposedly entirely amenable to the vaginal method, but which demand, as the operation proceeds, a better and a wider field, that can only be had by abdominal section. This shows the interdependence of the two methods, and shows that wherever the boundary between them is drawn it must be made movable. It is interesting to recall that vaginal section not so long ago had the vantage ground in this territory, but was driven out because

of its poor results. This was due partly to its faulty technique. Through abdominal section it has perfected its technique and again comes forward for recognition.

One year ago I thought that 100 cases could be divided equally between the vaginal and the abdominal method, but now I think that 75 would be suitable for the vaginal and 25 for the abdominal operation. I have performed about 72 vaginal sections for every species of disorder for which it has been advocated. This excludes vaginal hysterectomy previous to 1892, as what I am considering now is based entirely upon my own work in cases not cancerous. I am prepared to modify my conclusions when shown that they are not properly grounded. I have here a tabulated statement, favorable on the one hand to vaginal section, and on the other to abdominal section; but before reading it I shall take up the various conditions which I consider favorable for vaginal section:

1. **EXPLORATION OF THE PELVIS.**—There are certain obscure conditions of the appendages, of the uterus, and of the sigmoid flexure in which exploratory abdominal section has become a recognized operation. Direct inspection is often requisite. For instance, following curetting and trachelorrhaphy in a certain case, an inflammatory mass developed in the broad ligament, and supposing it to be a salpingitis I made an exploratory vaginal incision. To my surprise the tube and ovary were found to be normal. Then the uterus was drawn down with a vulsellum and the fingers swept over the entire pelvis, and a systematic examination of the region carried out. The outer and upper region of the right broad ligament contained a hard mass. Between it and the uterus was a distinct sulcus, in which the thickened tissue appeared in fair condition. In front, the perivesical fossa was nearly obliterated. I next selected an exit for the collection of pus, which was evidently what I had to deal with. In order to reach the pus, and at the same time avoid the uterus, an opening was made as in anterior colpotomy, the peritoneum pushed up, and the finger advanced upward and outward to the induration, from which pus was then freely evacuated.

2. **DISPLACED AND ADHERENT UTERUS.**—The next class of cases for which vaginal section appears particularly favorable are those of uterus fixed by adhesions. For instance, a patient had been subjected to a tamponade for several years. Free incision of the cul-de-sac gave easy access to the structure, and after the adhesions had been freely stripped off the uterus and appendages were placed in proper position, and maintained there by ALEXANDER's operation.

3. **OVARIAN TUMORS.**—All such tumors as are small enough to be contained, wholly or in part, in the pelvis, are suitable for the vaginal operation; but tumors large enough to reach beyond the umbilicus, or which are wholly outside of the true pelvis, are best treated by abdominal section. This remark applies particularly to the multilocular ovarian growths. While tumors wholly outside of the pelvis can be best treated by abdominal section, many of those can be reached by the vaginal method, provided it be proper to remove the uterus. It is advisable, however, to operate with the hips raised, otherwise the intestines and omentum may cut off the field, and fluid will accumulate just beneath the abdominal wall. Thus: An intraligamentous cyst of the left side was removed *per vaginam* through the cul-de-sac. Some difficulty was experienced in enucleating the sac, but this was overcome by opening the anterior fornix. I was impressed with the advantage of the anterior over the posterior route for reaching

these intraligamentous growths, for in this way the majority of them can be removed without invading the peritoneal cavity.

4. **EXTRA-UTERINE PREGNANCY.**—This is a condition which prior to rupture one can always elect to reach through the vagina. The tumor is easily reached in this way, although it may be necessary to remove the uterus. After the placenta is fully formed, the child being alive, suprapubic route would probably be preferable. Where the foetus is dead the vaginal route will meet every requirement, as we have to do little more than evacuate and drain.

5. **INFLAMMATIONS AND SUPPURATIVE DISEASE OF THE APPENDAGES, INCLUDING TUBERCULAR DISEASE.**—This field is particularly rich in opportunities for vaginal section. It offers the best means of checking the ravages of acute inflammation, and affords an opportunity for a partial plastic operation on the adnexa and uterus, and gives us the best operation for suppurative disease of the adnexa when their removal is demanded, as in tubercular disease and destructive inflammation of both appendages. It is interesting to note that this class of cases has furnished the battle-ground for this question.

(a) *Suppurative Conditions.*—As in the following case: Acute salpingitis and pelvic peritonitis following abortion at two and a half months. The uterus was cleansed and packed with sterilized gauze, and the cul-de-sac opened, and serum evacuated. A loose gauze drain was carried into the cul-de-sac after first washing it out with sterilized water, and all the packing was removed at the end of 48 hours. The case illustrates what will probably be one field for the operation—incision into the cul-de-sac with a view to drainage. The cleansing of the uterus, together with free drainage from the pelvic peritoneal area seems to be the rational way of treating such cases, but to be of service it must be done early. Another case, one of puerperal metritis, illustrates the ease with which one can go to extremes when required. A woman became septic (from sapremia) four days after delivery. In 10 minutes the uterus was removed, and the operation completed.

(b) *Chronic Inflammation of the Appendages.*—These may be divided into two classes: (1) those in which it is desirable to remove only the diseased structure; (2) those in which both adnexa are diseased and to be removed. In a case belonging to this group, by means of anterior colpotomy the uterus was anteverted and the fundus and appendages brought into the vagina. The right appendage was normal, the left one diseased. The latter was removed. The uterus was then returned to the peritoneal cavity and the opening into the peritoneal cavity closed. The special advantages of anterior colpotomy are well illustrated where one set of the appendages only requires removal.

6. **FIBROID DISEASE.**—I shall simply state as a general proposition that all soft fibroid tumors found below the level of the umbilicus can be removed by vaginal section. All hard fibroid tumors, largely in the pelvis, even though a considerable proportion is above the pelvic brim, can likewise be removed by vaginal section, but hard fibroid masses wholly above the pelvic brim, and so large as to forbid being readily drawn into the cavity of the pelvis, are difficult of extraction by the process of morcellation. It is a tedious process, even when successful.

RECAPITULATION.—The favorable conditions for vaginal section are: Explorations of the pelvis; operations upon the displaced uterus with adherent uterus and appendages; intraligamentous cysts; small ovarian cysts; fibroid tumors; acute inflamma-

tions of the appendages associated with acute peritonitis, the cul-de-sac of Douglas being involved; in extra-uterine pregnancy; in pelvic hematocele; in puerperal metritis; in destructive diseases of the appendages from inflammatory and tubercular processes; and in so-called conservative or plastic operations on the appendages.

The conditions favorable for abdominal section are: Explorations in the false pelvis and above the false pelvis; visceral adhesions in the false pelvis or above; cysts with long pedicles or gelatinous contents, which are situated wholly above the pelvic inlet; ruptured extra-uterine pregnancy where bleeding is active; extra-uterine pregnancy with the tumor wholly above the brim and the child alive; cancer of the ovaries; and large and hard fibroids mainly filling up the abdominal cavity, and extending above the line of the umbilicus.

These, in the main, cover the principal conditions that demand abdominal section on the one hand, or vaginal section upon the other.

The objections raised against the vaginal section may be grouped as follows: (1) Vaginal section to a certain extent must depend upon the size, shape, and condition of the pelvis; (2) the operation is liable to be incomplete; (3) the viscera are more likely to be injured; (4) sepsis is more difficult to prevent; (5) hernia will occur; and (6) the sloughing which accompanies the use of the clamp is a serious disadvantage.

On the other hand, the advantages claimed are: (1) It is as safe as abdominal section, and, as I believe, even safer, and the recovery more rapid; (2) there is less likelihood of hernia and of intestinal adhesions. The operation can be made complete.

Dr. E. W. CUSHING, of Boston: There can be no longer any doubt in the minds of those who have studied the evolution of vaginal hysterectomy that the resources of our art have been wonderfully increased by the introduction of the method of morcellation of the uterus. It is a significant fact that it has extended in the face of strong opposition, and has increased from year to year in Europe, and has now among its strongest advocates those who formerly spoke emphatically against it. There are still many who agree with an eminent surgeon in this country, that vaginal hysterectomy for pus tubes is "blind, ignorant, and cowardly." I felt somewhat the same way myself at first, but I soon became convinced that a new era had been instituted in pelvic surgery. Last summer I carefully studied the methods of vaginal hysterectomy by morcellation, as carried on by the most eminent surgeons abroad. Statistics show that accidents to other organs are not so frequent with the vaginal as with the abdominal method. Many of our distinguished surgeons now prefer to perform total extirpation of the uterus and appendages by abdominal section, because of the evils following the leaving-in of the uterus. Therefore, the question is really between total abdominal and total vaginal removal of the uterus and appendages. I am not now doing one-third as many cases of abdominal section as I was doing last year, since I find that so many are better treated by vaginal hysterectomy. By morcellation the character of the operation has been so much changed that it has become in effect a new procedure. By splitting the uterus, either half can be brought down much farther than the whole organ could be before division. Room is gained in the lower pelvis so that the uterus can be tilted forward, thus exposing more of the anterior surface. By splitting this half again, a still further bringing-down of the organ can be accomplished. During this gradual descent and anterior rotation of

the organ, any adhesions come into sight and can be separated with care. In this method the vessels of the broad ligament are controlled by clamps having powerful jaws and under the guidance of both sight and touch. In this way the uterus can be safely and speedily removed with a minimum of shock, even when firmly bound down by adhesions or where it contains a myoma. By such means all fibroid tumors up to the size of a cocoanut can be removed with far less shock than by abdominal section.

The ease and safety with which the diseased uterine appendages can be removed by the vaginal route, and the ease with which the adhesions to intestines can be separated, can hardly be believed by one who has not seen the vaginal operation done by a master of the method. Whatever part of the tube presents itself after the removal of the uterus may be brought down and enucleated, not blindly, but while in plain sight. If the appendages are full of pus, they may be opened and washed out without soiling the peritoneal cavity. In very grave cases it is true the sac of a large tubo-ovarian abscess may have to be left *in situ*, but even here the washing and drainage can be easily carried out.

When circumstances indicate the choice of the vaginal or the abdominal method—supposing of course the operator to be familiar with both methods—I think the vaginal operation is to be preferred in cases of myomatous uteri of moderate size. A want of space between the ischia, giving a narrow outlet to the bony pelvis, is a serious contra-indication, and also where the tumor is over five inches in diameter. If the operator is not very expert with the vaginal method, the abdominal operation should be preferred in cases where there are many intestinal adhesions. When the operation is performed for disease of the adnexa, it is pretty generally agreed that the vaginal operation is best in the severest cases; *i. e.*, in those in which there are large collections of pus from tubo-ovarian abscesses, or from suppurating hematocele where the pus is roofed over by dense adhesions of bowel and omentum, and the patient is feeble from absorption of septic matter and want of food. As the uterus is almost always diseased in cases of pyosalpinx, it is certainly better to remove it if this can be done without greatly increasing the danger. If, however, there is apparently no pus present, and there is a probability that the appendages are bound down by dense adhesions, I am not yet convinced of the superiority of the vaginal method. When it is not certain that both appendages are involved, the vaginal vault can be opened behind, or better in front, and the appendages inspected, and the removal of one or both decided upon.

The advantages of vaginal operation are: Diminution of shock to the general system, and especially of the shock to the intestines; freedom from an abdominal wound and scar; and freedom from the liability to hernia. In every case, however, the operator has to consider whether the diagnosis is sufficiently certain and the conditions are sufficiently favorable to justify him in giving up the precious advantages of abdominal section, *viz.*: plain view, plenty of room, and the ability to alter the plan of operation in accordance with conditions ascertained only after commencing the operation.

(Dr. CUSHING then projected on the screen, by means of a lantern, a number of photographs taken during the progress of the vaginal operation, illustrating the main points of interest connected with it.)

Dr. W. T. Lusk: It is with great interest that I have heard the experience of Dr. POLK, who was

the pioneer of this work in New York city. We are also greatly indebted to Dr. CUSHING for the lantern demonstration of the methods employed.

It may be of some interest to refer to the steps of my own conversion to this method. When it was first proposed at Brussels, in 1892, to substitute the vaginal route for most of the work then being done by the abdominal method, I confess that I received the suggestion with much impatience, for there were several other important questions arising, and it seemed as if we had already reached a stage at which our statistics had ceased to be of any special wonder, and our methods were almost above criticism. But after a while my attention was attracted by the wonderful rapidity of recovery in cases where the vaginal operation had been done, and having seen some of the work of PÉAN, POZZI, SÉGOND, and JACOBS, I took it up myself. Notwithstanding the long time consumed in removing fibroids by morcellation, the operation seems to have scarcely any appreciable effect on the patient, and the removal of small ovarian cysts of the broad ligament can be accomplished almost without risk and without shock. I have hesitated the longest about adopting the vaginal method in cases in which it seemed as though parts of tubes and ovaries might be saved, and I still think the abdominal route is preferable to the vaginal route in this class of cases. But according to MARTIN a rather large class of cases can be best handled through the anterior incision (Mackenrode's). Unless the tubes are excessively enlarged, it is possible to detach them and bring out first one cornu, then the fundus, then the other cornu, and then the tubes, and examine them at leisure. The shock is not greater than that which ordinarily follows amputation of the cervix. Not only do I think that this method is the coming one, but women are already insisting that they shall be operated upon by this method. But in learning the vaginal operation, one should be a little careful to adopt it at first only in the simpler cases. If this is done, I am sure the mortality will be as favorable as from abdominal section, and the patient will experience much less discomfort. I hope that before long we shall be found again discussing that all-important question—laid aside for the moment: In how many cases can we save these organs to the woman?

Dr. BALDY, of Philadelphia: I am not in sympathy with the views advanced here to-night, and I am in this assembly almost alone, I believe, in my opposition to the vaginal operation. I have no quarrel with the good points of the vaginal method, nor do I question many of its advantages and results, but I think too little comparison is made between this and the abdominal route, by which alone we can draw any real conclusions regarding the value of these respective methods. I believe that there is just as little shock from the abdominal as from the vaginal operation, and that a given operator in a given case can do a given operation infinitely better, and with less risk to the patient, by the abdominal route.

The argument that the peritoneal cavity is not so generally opened by the vaginal route may seem a very plausible one to those not familiar with such operations, but others will recognize the fact that this statement is absolutely without foundation in fact, for there is not one case in a hundred by the vaginal method in which the peritoneal cavity is not opened as much as by the abdominal method. I contend also that conservative work on the appendages can be much better done by the abdominal route, with the patient in the Trendelenburg posi-

tion, and that it is much easier to make a positive diagnosis and determine whether the operation shall only be an exploratory one, when the abdominal method is used, than when resort is had to the vaginal route. By the latter, one must rely almost wholly on touch; by the former, both sight and touch will aid you.

The question of shock is continually brought up, but I do not think shock is a great element in pelvic surgery. Of course we see cases in which the pulse becomes weak after stopping the ether, but this is not true shock; it is due to the withdrawal of the ether.

You have heard the bright side of the vaginal operation. Hernia is brought forward as an argument against the abdominal operation, but it is now a comparatively rare complication of this procedure, and in addition it should be remembered that cases of vaginal hernia after the vaginal operation are already on record. I would ask any surgeon which form of hernia he would prefer to treat. It should also be borne in mind that one reason why so few vaginal herniæ have been reported is that comparatively few vaginal operations have yet been done in this country. The proportion of fistulæ that have been reported after vaginal hysterectomy is truly alarming; hardly an operator has failed to include 15 or 20 fistulæ in his list of operations, and they speak of the difficulty of closing these fistulæ. Sometimes an abdominal operation is necessary to close the fistulæ, and such a secondary operation is infinitely more difficult than the original one. Again, injury may often be done the ureter without the operator knowing it. Three times in my experience the ureter has been injured during an abdominal operation, and has only been discovered near the close of the operation. Had I operated by the vaginal route it would in each case have gone undetected. All these cases were successfully repaired.

I have never had the fortune to see a vaginal-hysterectomist do a complete operation. Dr. POLK, at a recent meeting of the Philadelphia Obstetrical Society, questioned this statement when I made it, and referred to a case of ordinary pelvic inflammatory disease with adherent tubes and ovaries, but without any pus (I only refer to this case with Dr. POLK's permission). Dr. POLK operated upon this case by the vaginal method in my presence, and only succeeded in removing part of the left tube. I consider this an incomplete operation, but Dr. POLK does not agree with me, because no ligature was placed on that side, and all but half an inch of the tube was removed. If this operation had been done by the abdominal route, Dr. POLK could have removed the balance of the tube, and have had the patient in bed from a half to three-quarters of an hour sooner. I contend that an expert operator takes almost twice as long by the vaginal as he does by the abdominal route. The deleterious effect of thus prolonging the etherization should be taken into account.

The quicker convalescence claimed for the vaginal operation is again a question of the point of view, for an abdominal operator believes that his patient is better for being in bed for four weeks, irrespective of her recovery surgically, while the vaginal operator allows his patient up as soon as she is surgically well. The abdominal wound does not seem to me a serious matter if we avoid the occurrence of hernia. Carefully weighing all these facts, it is my opinion that the balance is decidedly in favor of the abdominal operation, sentiment not considered.

Dr. E. B. CRAGIN: The first vaginal celiotomy I ever saw was performed by Dr. POLK, and the more I operate the more thankful I am that he

started me in doing vaginal celiotomies. All who operate through the abdomen must have observed that the patients are depressed—call it “shock” or not. I think all have noticed that this depression is not so great after the vaginal operation. Dr. BALDY would exclude the large pelvic intraperitoneal abscesses, but it is in just this class that the vaginal operation has the advantage over the abdominal. Since March 2, 1895, I have done 55 vaginal celiotomies and 53 abdominal, showing that the routes selected have been about equally divided. For diseased appendages there were 42 vaginal operations against 18 abdominal, and, as a number of these 18 were for large ovarian tumors, it follows that, in my experience, in inflammatory conditions of the appendages, about 75 per cent. have been operated upon from below and 25 per cent. from above.

I will admit that there is a little more danger of injuring the rectum when operating from below than from above, but when the uterus is removed most of these fecal fistulæ close spontaneously in a short time.

Dr. BALDY has just admitted that he has seen the ureter injured in three different abdominal operations, hence all the accidents cannot be laid to the vaginal route. I think both the immediate and the ultimate results from the vaginal operation are better than from the abdominal, and I believe that vaginal celiotomy has a future.

Dr. CHARLES P. NOBLE, of Philadelphia: We have heard the favorable points for the vaginal operation, but everything has been put in very general terms. I should like to ask Dr. POLK and Dr. CUSHING how many vaginal operations they have done, how many deaths they have had, and how many fistulæ they have had.

Dr. POLK: The mortality has been 3 in 72, and the fistulæ 2 in 73.

Dr. CUSHING: I have had by the old methods about 75 vaginal hysterectomies, with 5 deaths. There have been 2 ureteral fistulæ and 3 bladder fistulæ, all of which I have cured. More recently, by the new method, there have been 20 cases, with 1 fatality. All the operations have been complete.

Dr. NOBLE: In determining the choice of operation we should consider the mortality, the *sequelæ*, the convalescence, and the ability of the operator to deal with complications. I think at present the mortality is lower by the abdominal route, but it is so low by both methods that we cannot make a point of mortality. Last May, JACOBS reported a series of vaginal hysterectomies with a mortality of 4.2 per cent., while the statistics for abdominal hysterectomy were 27 per cent. Dr. KELLY has had 107 abdominal hysterectomies for inflammatory conditions, without a death. In my own cases, 5 per cent. would cover the cases in which disagreeable *sequelæ* have followed the operation by the abdominal route. Adhesions occur by both methods. The 10 per cent. of incomplete operations that most vaginal-hysterectomists report must be contrasted with the small number of infected pedicles by the abdominal method. There can be no question that bowel and bladder fistulæ are much less frequent by the abdominal route; and should such injury occur, the abdominal operator can close the rent at once. My own cases of vaginal hysterectomy have been in hospital as long as the abdominal hysterectomies. The matter of the time spent in bed by these women is a trifling one.

By the abdominal route it is infinitely easier to meet complications arising during the operation, and also to control the hemorrhage. Regarding the question of hernia, I would say that in my re-

cent report on this subject I showed that 200 cases had been treated by buried sutures of silkworm gut without a single hernia. In a hospital where the facilities for asepsis are poor, I would prefer to operate from below. It is very crude surgery to use clamps for arresting bleeding. I believe that by anterior colpotomy small fibroids may be removed, but for fibroids of any size I should prefer abdominal section to morcellation. The abdominal method is also better for cases of tubal pregnancy. If we operate from below, I am sure that we shall unnecessarily sacrifice many ovaries. I do not wish it to be understood that I think we should never operate through the vagina, for this route is preferable to the abdominal one for the treatment of large pelvic abscesses and when operating on very fat women.

The replies of Drs. POLK and CUSHING are of interest as showing that by changing from the abdominal to the vaginal route they have not lowered the mortality, but have increased the number of disagreeable complications and *sequelæ*, especially the fecal and bladder fistulæ. Dr. POLK also has increased the proportion of incomplete operations in his hands.

Dr. H. J. BOLDT: In comparing the relative value between an abdominal and a vaginal section it is necessary to consider the pathological conditions for which such section is made. My remarks are based upon a sufficiently large experience with both methods of operation to justify one to come to some definite conclusion regarding the merits of these operations for certain pathological lesions. We can remove ovarian tumors, even of considerable size, *per vaginam*, provided that the neoplasms are movable. Again, we have by means of the vaginal operation a method of breaking up the adhesions of a fixed retroposition of the uterus which gives equally as good result as the abdominal incision. For tubal gestation a vaginal operation may be substituted for the abdominal procedure in such cases where it is apparent that no rupture has taken place, or that subsequent to the rupture the hemorrhage has ceased. Myo-fibromatous tumors of the uterus can be readily attacked *per vaginam* if they are not large; but I would limit their size to such which do not extend more than three or four fingers width above the symphysis with the *proviso* that the vaginal canal should be sufficiently roomy to allow one to work with ease.

The variety of tumors to which the operation from below is applicable are the submucous and the interstitial tumors, as well as those of the vaginal portion; subserous tumors on the anterior surface of the cervix may also be readily removed from below. For all other variety of tumors of this nature and for the large-size tumors, as well as for neoplasms occurring in virgins (unless they are readily accessible *per vaginam*), I deem abdominal hysterectomy by far the most preferable method.

We have now to consider the most interesting class of cases, namely, those patients who have multiple pelvic abscesses with or without suppurative diseases of the fallopian tubes, and cases of recurring pelvic peritonitis with tubo-ovarian disease, chronic metritis and endometritis complicated with pelvic inflammation, which will not yield to ordinary methods of treatment. For all such cases the vaginal method of operating is decidedly that which yields the best results in the hands of most operators of experience, if we consider both the immediate and remote terminations combined, although there are exceptions in which it may become necessary to also open the abdomen, thus making the

combined operation necessary, namely, when intestines are injured during a vaginal operation, which is, however, a very rare accident in the hands of those accustomed to this kind of work.

The really complicated cases of pelvic abscesses are, as a rule, incurable except by a radical operation; that is, by removal of the pelvic organs; yet if such undertaking is resorted to per abdominal section, the prognosis is exceedingly unfavorable, whereas, if one operates from below, both the direct and ultimate results are almost invariably favorable. It is of course desirable to remove all pathological conditions, including the adnexa, but it is by no means absolutely necessary to succeed in this in order to obtain a perfect cure. The reasons for this I am unable to give; however, the facts are proved by experience that such is the case, not only in my own cases, but those of every operator whose experience I have seen in print; it is possible, however, to remove all pathological products in nearly all instances with patience and careful work.

To say that a vaginal operation is to be invariably preferred over abdominal section is, in my estimation, an error, because there are cases in which it is evident that one uterine appendage can be saved by conservative surgery, and I deny the possibility of being equally conservative with operations done *per vaginam* as one can be in operating from above, limiting this restriction to the complicated cases. It is also my conviction that a more satisfactory diagnosis can be made if an abdominal section is done, provided the operator makes his incision sufficiently long to utilize his eyesight as an aid for diagnosis. It is not necessary for me to dwell in detail upon the obvious advantages of a vaginal operation over the abdominal operation, as far as convalescence is concerned, the dangers of subsequent hernia, and the risks encountered from intestinal adhesions to the parietal peritoneum at a subsequent period. I do not believe that the risk of injuring the ureters or the intestines is any greater if one operates *per vaginam* than if he operates *per abdomen*.

Dr. H. N. VINEBERG: I believe I was the first to introduce into this country the operation of vaginal fixation, which was the forerunner of vaginal section for conservative work. My first vaginal section for conservative work on the adnexa was done in November, 1894, and it is in this class that I consider the vaginal method especially valuable. I know from experience that a portion of ovary can as well be resected through the vagina as through the abdomen, and where there is retroversion also, as is frequently the case, this can be treated at the same time by sewing the uterus to the vaginal wall. In the technique of vaginal section I first advocated the anterior longitudinal vaginal incision, and I am glad to see that it is growing in favor. I cannot agree with the reader of the paper that, in cases of retroflexion with diseased adnexa, it is necessary to do an Alexander's operation, for the retroflexion can just as well, if not better, be remedied by a vaginal fixation. By the vaginal method, several operations can be easily done at the same time. I believe, as has been said, that in almost every case the peritoneal cavity is opened in the vaginal method.

Dr. PAUL F. MUNDÉ: I think it is about time that something be said to correct the false impression that is being created here that operators in New York city do everything *per vaginam*. I have removed the uterus *per vaginam* for cancer in 27 cases with 24 recoveries, but I shall not do it again, as equally good results have been more easily obtained

by the suprapubic method in the Trendelenburg position. There was certainly no more shock by the abdominal method.

I have removed only 33 fibroid uteri by the abdominal method, of which 4 died. Comparing the vaginal and abdominal operations, the former seem to me like night and the latter like day. I have long maintained that for *fluid* accumulations which point into the vagina we should operate from below; and although I have been severely criticised, this view is now gaining ground. But I would limit vaginal hysterectomy to cases where with a roomy vagina there are numerous abscesses, which can be opened and drained with or without hysterectomy. I do not believe that the majority of pelvic surgeons in this city are in favor of the vaginal route for the removal of the uterus and appendages.

Dr. E. E. TULL: In answer to the question of the completeness of the vaginal operation, I would like to present a specimen removed through the vagina in 12 minutes. The specimen speaks for itself. Convalescence was quick and easy. I have done the operation in 50 cases with 2 deaths, both of the latter being from purely accidental causes. I cannot see the necessity for using so many clamps.

Dr. W. GILL WYLIE: I have done about 1500 abdominal operations as against 100 vaginal operations. Of the latter, only one patient died. There has been so much more work in this country by the abdominal method that we cannot yet fairly compare the results from the two methods. I am satisfied that my vaginal hysterectomies have been successful because they have been done in a favorable class of cases. If the French surgeons had been as expert in abdominal surgery as the English and German, I do not think the vaginal method would have been so strenuously urged.

Dr. POLK: Most of us seem to agree that the abdominal route is the easier, but the easier operation is not always the better one for the patient. Dr. BALDY seemed to think that the vaginal operators were shy of entering the peritoneal cavity, but this cannot be the case, as we are certainly as likely to enter this cavity from below as from above. Regarding the time consumed in operating, it is evident, from Dr. NOBLE's admissions, that considerably more than five or seven minutes were taken by Dr. NOBLE in completing his operations, including the suturing. I have been in doubt as to which method was preferable for treating cancer, but I think the time has come when in these cases we can go back to the operation of FREUND and add to it the removal of the broad ligament and such infected glands as may exist, and this should be done by the abdominal route.

Those who have participated in this discussion do not seem to have grasped the great underlying principle, viz.: that pelvic disease begins in the pelvis, generally in close relation with the vagina; and by vaginal incision, which is almost devoid of risk, we may prevent extensive destruction of pelvic structures. If we adopt the practice of resorting to vaginal section early in disease, we shall wipe out most of the objections which have proved stumbling-blocks to-night.

Iodoformal.—Iodoformal is a yellow powder having a strong odor of cumarin, and a lower specific gravity than iodoformin. It is insoluble in water and in ether, readily soluble in boiling alcohol; it melts at 128° C. (262.4° F.), and yields iodoform when acted upon by hydrochloric acid. It may be distinguished from iodoform in that it yields iodine by the action of concentrated sulphuric acid.

BOOK REVIEWS

American Academy of Railway Surgeons; Official Report of the First Meeting, held at Chicago, Ill., Nov. 9 and 10, 1894. Edited by R. HARVEY REED, M.D.

This is simply a *résumé* of the work done at the First Annual Meeting of the American Academy of Railway Surgeons, and is interesting because the discussions were so full and are so well reported. The editorial work has been carefully done.

Notes on Surgery for Nurses.—By JOSEPH D. BELL, M.D., F.R.C.S. (Edinburgh). Fourth edition, thoroughly revised, with an additional chapter of General Advice to Nurses. 180 pp. Edinburgh: Oliver & Boyd, 1895.

This little book, which appears this time in rather better dress than heretofore, has always had a place in the nurses' library. The final chapter, of general advice to nurses, is one that might well be put in the hands of every one who pretended to do nursing, whether already trained or still in the training-school. The book shows the advantage of passing through several editions, and has evidently been carefully revised. It is safe, and should be studied by trained nurses generally.

L'Opération du Trépan.—By FÉLIX TERRIER, Professor to the Faculty of Medicine of Paris, etc., and M. PERAIRE. With 222 figures.—Paris: Félix Alcan; 1895.

This little book is in reality a *résumé* of a series of demonstrations upon operations of the skull, delivered to the Faculty of Medicine of Paris in 1894, by Professor Terrier. It is divided into four parts, the first being a general *résumé* of the history of trephining from the prehistoric age down to the present. In the second part cerebral localization is discussed, and the third covers the operative treatment and the description of instruments, much space being given to a study of the evolution of the trephine, and finally a discussion of the question of the indications and contra-indications for the operation. The book is interesting from the compilations that have been done, and is valuable as a means of rapidly reviewing the work along the lines of cerebral surgery. The same frequent errors in American and English names are noted that we usually find in French works, but on the whole the work is well done and the discussions interesting.

The Growth of the Brain.—A Study of the Nervous System in Reference to Education.—By HENRY HERBERT DONALDSON, Professor of Neurology in the University of Chicago.—8vo.; pp. 374.—London: Walter Scott, Ltd. New York: Charles Scribner's Sons.

The greater portion of this book consists in a compilation of the results obtained from such psychologists, anatomists and pathologists as have devoted especial attention to the central nervous system.

General embryology is briefly discussed to serve as an introduction to the embryology and later growth of the nervous elements. Numerous tables are reproduced, giving the results of investigations relative to the variations in brain weight under varying surroundings and in different classes of society.

This method is continued in treating of the development, growth and variations of the individual nerve elements, together with the effects on them of physiological rhythms, old age, and fatigue.

To support the theory that the possible number of cells, latent and functional, in the central nervous system is at an early age fixed, the case of LAURA BRIDGMAN is cited, in the defective portions of whose cortex were found a large number of granules and partially developed cells.

This theory is again referred to in the chapter on education. It implies that while, by the process of education, additional function may be given to cells not fully developed, no known method of training can increase the number of primitive cellular elements.

The work, as a whole, evidences much care in preparation, and the author is to be congratulated on having embodied such a large quantity of data in so small a volume. The facts it contains are useful chiefly to the neuro-anatomist and the anthropologist; up to the present time the personal equation of the investigators, the varying sources from which the facts have been obtained, and the general complexity of the subject, have all combined to render anatomical studies on the human central nervous system, of but little value for the solution of sociological problems.

Die Autoscopie des Kehlkopfes und Luftröhre. (Besichtigung Ohne Spiegel.)—By Dr. ALFRED KIRSTEIN.—Berlin: Oscar Coblentz, 1896.

In this monograph of about forty pages, KIRSTEIN narrates the history, physics, and technic of the new instrument by means of which it is possible to obtain a direct view of the deeper parts of the pharynx, the larynx and trachea, and the commencement of the bronchial tubes.

The truthfulness of the inventor's claims has been demonstrated on this side of the water, although, as yet, the autoscope has not become at all extensively used. It is doubtless a valuable aid in examination and even operation, but the prevailing opinion, as thus far expressed, seems to be that its use will be restricted to a comparatively small number of patients. The "capacity for autoscopy" is possessed only by a limited number on account of anatomical conditions.

Dr. KIRSTEIN realizes, however, as fully as any one, the limits of the applicability of his new device. He is perhaps over-sanguine in believing that for endolaryngeal and endo-tracheal surgery operating by autoscopy will become the standard method.

BOOKS RECEIVED

Handbook for Hospitals.—By Abby Howland Woolsey, Member of Committee on Hospitals, State Charities Aid Association.—Third edition; pp. 267. Copyright, 1895, by State Charities Aid Association. New York: G. P. Putnam's Sons; 1895.

A System of Surgery.—By American Authors. Edited by Frederic S. Dennis, M.D., Professor of the Principles and Practice of Surgery, Bellevue Hospital Medical College, New York; President of the American Surgical Association, etc., assisted by John S. Billings, M.D., LL.D., D.C.L., Deputy Surgeon-general, U.S.A.—Profusely illustrated with figures in colors and in black. Volume III, 908 pages, 207 engravings, and 10 colored plates. Philadelphia: Lea Brothers & Co.; 1895. (To be completed in

four imperial octavo volumes, containing about 900 pages each, with index.) Price per volume: \$6.00 in cloth; \$7.00 in leather; \$8.50 in half morocco, gilt back and top. For sale by subscription.

A Manual of the Practice of Medicine.—By GEORGE ROE LOCKWOOD, M.D., Professor of Practice in the Woman's Medical College of the New York Infirmary; Attending Physician to the Colored Hospital and to the Charity Hospital; Pathologist to the French Hospital.—Pp. 935, with 75 illustrations in the text and 22 full-page colored plates. Philadelphia: W. B. Saunders; 1896. Price: Cloth, \$2.50 net.

Principles of Surgery.—By N. SENN, M.D., Ph.D., LL.D., Professor of Practice of Surgery and Clinical Surgery in Rush Medical College, Chicago; Professor of Surgery in the Chicago Polyclinic; Attending Surgeon to the Presbyterian Hospital; Surgeon-in-chief to St. Joseph's Hospital.—Second edition, thoroughly revised. Illustrated with 178 wood engravings and 5 colored plates. Royal octavo; pp. xvi + 656. Philadelphia: The F. A. Davis Co.; 1895. Price: Extra cloth, \$4.50 net; sheep or half russia, \$5.50 net.

EDITOR'S NOTES

Program for Meeting of the Medical Society of the State of New York

The meeting will be held at Albany, January 28, 29 and 30, 1896.

TUESDAY. Morning Session.—Inaugural address of the President, to be followed by the business sessions, reports of committees, etc. "On Serum Therapy," by Dr. E. H. Wilson, of Hoagland Laboratory, Brooklyn. "Water and its Relations to Disease," by Dr. W. P. Mason, of Troy (late of the Pasteur Institute, Paris). "On Sepsis of the New-Born," Dr. M. A. Crockett, of Buffalo. "The Question of Puerperal Self-Infection," by Dr. Charles Jewett, of Brooklyn. "A Medico-Legal Note," by Dr. A. Walter Suiter, of Herkimer. "Shall the State Attempt to Control Spread of Tubercular Disease?" by Dr. J. L. Heffron, of Syracuse. **Afternoon Session.**—Discussion: "On Early and Latent Syphilis in Infants and Young Children." Opened by Dr. George T. Elliott, of New York, "Diagnosis and Treatment;" Dr. Ernest Wende, of Buffalo, "Pathology;" Dr. B. Sachs, of New York, "Nervous Manifestations." "Diseases of Intra-Uterine Life." "On the Part of the Mother," by Dr. E. H. Grandin, of New York; "On the Part of the Child," by Dr. P. W. Van Peyma, of Buffalo. Address: "Medical Education of the Future," by Dr. Charles Eliot, President of Harvard University. "On Sloughing Fibroids Complicating Pregnancy," by Dr. M. D. Mann, of Buffalo. **Evening Session.**—"Scorbutus in Infants," by Dr. H. C. MacLane, of Brooklyn. "Treatment of Malignant Disease in So-called Cancer Institutions," by Dr. Nathan Jacobson, of Syracuse. "Alcoholism and Public Health," by Dr. H. R. Hopkins, of Buffalo. "On the Evolution of Pathology," by Dr. J. H. Hunt, of Brooklyn.

WEDNESDAY. Morning Session.—"Abdominal or Vaginal Celiotomy—Which?" by Dr. J. W. Whitbeck, of Rochester. "Vaginal Hysterectomy without Ligations," by Dr. W. E. Ford, of Utica. "Complications in Abdominal Surgery requiring Intestinal Anastomosis," by Dr. A. Vander Veer, of Albany. "Some Rare Complications of Appendicitis," by Dr. Herman Mynter, of Buffalo.

"Treatment of Fractures of the Patella by Continuous Extension, without Confinement in Bed," by Dr. J. D. Bryant, of New York. "Early Diagnosis of Tubercular Kidney," by Dr. Willy Meyer, of New York. "The Improved Cesarian Section," by Dr. H. J. Garrigues, of New York. **Afternoon Session.**—"Congenital Dislocation of the Hip," with exhibition of case successfully operated, by Dr. T. Halsted Meyers, of New York. "Heteroplasty with Celluloid to Cover Defects in the Skull," by Dr. Willy Meyer, of New York. Discussion: "On the Present Status of the Surgery of the Brain." Opened by Drs. E. D. Fisher, A. M. Starr, S. D. Powell ("Surgery of the Skull"), B. Sachs ("Surgical Treatment of Epilepsy"), C. L. Dana ("Craniotomy for Imbecility and Epilepsy"), of New York; Drs. J. W. Putnam and W. C. Krauss, of Buffalo. Address: "Irritation and Counter-Irritation," by Professor William H. Pepper, of Philadelphia. Address: "Deficient Excretion from Kidneys not Organically Diseased, in Some of the Disorders Peculiar to Women," by Professor James H. Etheridge, of Chicago. **Evening Session.**—President's Address: "On the Study of Pathology by Comparative Methods." To be followed by an informal reception in the State Library, and inspection of the new Medical Department of the Library. Annual dinner.

THURSDAY. Morning Session.—"Reorganization of the Coroner System," by Dr. W. G. Macdonald, of Albany. "Distinctive Fractures of Railroad Surgery," by Dr. R. S. Harnden, of Waverly. "Diabetes and Acetonuria in Children," by Dr. W. S. Cheesman, of Auburn. "Development of Muscular Atrophy on a Basis of Old Infantile Spinal Paralysis, a Favorable Type," by Dr. W. Browning, of Brooklyn. To be discussed by Dr. C. F. Barber. "The Equilibrium Function of the Ear," by Dr. Gaylord P. Clark, of Syracuse. "On the Surgical Treatment of Retroversions and Retroflexions, with Special Reference to Vaginal Fixation," by Dr. H. N. Vineberg, of New York. "Neuritis Complicating Dislocations of the Shoulder and Elbow," by Dr. M. A. Veeder, of Lyons. "Trephining for Injuries and Diseases of the Cranium," by Dr. W. W. Seymour, of Troy. "Difficult Perineal and Suprapubic Lithotomy," by Dr. W. Hailles, Jr., of Albany. "Abscess of the Frontal Sinus," by Dr. J. P. Creveling, of Auburn. "Some Notes on Trachoma," by Dr. M. L. Foster, of New York. "Tetanoid Hysteria," by Dr. Grace Peckham Murray, of New York. "Treatment of Edema of the Lungs," by Dr. Louis Faugères Bishop, of New York. "Treatment of Sciatica with Nitroglycerin," by Dr. W. C. Krauss, of Buffalo. "Treatment of Aspiration Pneumonia by Drainage by Invasion," by Dr. W. W. Seymour, of Troy.

County Medical Society Nominations

At the meeting of the New York County Medical Society, next Monday, January 20, an attempt is to be made to bring about rotation in office. It seems that the present officers have held office for some years, and are desirous of reelection. Many of the members believe that a change would be beneficial to the best interests of the association, and they have nominated the following ticket:

President, Dr. JOSEPH E. JANVRIN; vice-president, Dr. HERMAN J. BOLDT; corresponding secretary, Dr. CARTER S. COLE; recording secretary, Dr. A. L. GNICHTEL; treasurer, Dr. FREDERICK A. BALDWIN; member of executive committee, Dr. JOHN G. COYLE.

American Medico-Surgical Bulletin

Vol. IX

NEW YORK, JANUARY 25, 1896

No. 4

THE rapid development of this publication, and especially its recent advance to a weekly issue, has necessarily meant a constant increase in the work of the editorial staff; and since Dr. FREDERICK PETERSON, our able and efficient Associate Editor, has found it absolutely impossible to devote more of his time and thought to this journal than he has given to it hitherto, he has tendered us his resignation, which, under the circumstances, we have had to accept, much to our regret.

Dr. PETERSON, while thus retiring from the active management of the BULLETIN, requests us to assure its readers that his heart and sympathy are still with it, and that he hopes to publish through its pages many of his future writings. We, on our part, shall ever gratefully remember the valuable advice Dr. PETERSON has always given us in the editorial council, and the good work he has done in every other respect while on the staff.

As his successor we are proud to announce Dr. EGBERT H. GRANDIN. He needs no introduction. Dr. GRANDIN is recognized throughout the medical profession as one of its most trustworthy leaders, as a man of unusual learning, of widest experience and ripest judgment. Dr. GRANDIN, as Associate Editor, will share equally with our able and tried Chief Editor in the management of the BULLETIN, and we feel confident that in the hands of these two eminent authorities the enterprise will continue in the same scientific, progressive, broad spirit that has so far characterized it.

THE PUBLISHERS

CAN AN ANIMAL FROZEN TO AN ICE-CLUMP BE RESTORED TO LIFE?

WHETHER, and in how far, the water of animal tissues can be frozen without the latter, as regards the whole animal, dying, has, in spite of many observations and statements, not as yet been decided with certainty. For the restoration of wholly or partially frozen human beings and animals, an accurate knowledge of the processes occurring in the tissues on intense cooling is of great practical significance, because by this means only can a proper application of the methods to be employed for restoration be recognized.

It may be instructive to learn what physical laws come into play especially during the solid freezing of a living tissue, and how the manifold contradictory observations can be explained.

KOCHS has shown (*Biol. Centralblatt*, 1890, X, No. 22) that animals in which *all* the water contained in the corporeal substance is crystallized out by cooling can never be restored to life. Complete congelation of the water of the body tissues signifies complete drying—separation of all the soluble and loosely chemically united gases, as well as crystallization of the salts. As a result of this the structure of the protoplasm, as well as its chemical and physical characters, is necessarily destroyed. Death follows as a result of this separation of the living substance, and not as a consequence of great reduction of temperature. Water containing leeches can be lowered to -4.5° C. without the formation of ice within the tissues of these animals. Only when crystallization of the water surrounding the animals occurs, and extends into their richly watery tissues, do they die.

Now, distinguished observers assert that animals frozen to a solid mass have, on thawing, again been restored to life. PFLUEGER says (*Die allg. Lebenserscheinungen*, Bonn, 1889, p. 24): "A great number of facts demonstrate that all vital processes in the organs of animals and plants lose in energy on cooling, and at sufficiently low temperature come to a standstill. The latter applies even when an animal is frozen to a solid ice mass."

Numerous researches show that the possibility of restoration of a frog frozen to a solid mass is no longer questionable. For the success of the experiment many observers state that slow cooling and slow thawing are necessary. In spite of the most careful procedures, the experiment appears to have very seldom succeeded under other conditions.

Now, how may this fact be made to harmonize with the above undoubtedly correct statements regarding the processes occurring on freezing of an animal? An explanation appears to have been found in recent experiments, conducted by KOCHS, (*Biol. Centralblatt*, 1895, XV, No. 9,) upon crystal formation in watery solutions.

When a concentrated sodium-chloride solution is cooled to -10°C ., neither perceptible separation of salt nor ice formation is noted. If, however, a solution of copper sulphate or magnesium sulphate saturated at room temperature is cooled to -10°C ., a number of more or less large crystals are formed according to the rapidity of the cooling, but the whole mass congeals to a light blue or grayish turbid ice. Careful examination shows this ice to have become beautifully striated, and that it differs from frozen pure water. If the vessel be inverted, no liquid flows out; only when the blue or gray ice mass is injured does concentrated copper or magnesium sulphate solution slowly escape, leaving a spongy skeleton of pure white ice-needles, which, on careful separation of the salt solutions in the cold, yield pure water when thawed. Usually, on thawing, crystals of the salt in question are seen to freeze out or separate from a saturated solution of a salt. Then, on further cooling, there arrives a point where the salt ceases to crystallize out, and now the greater part of the water separates into crystals. A concentrated sodium-chloride solution and a concentrated copper-sulphate solution behave decidedly different on freezing at moderate degree of cold up to -15°C . From the copper solution, the greater part of the water crystallizes out, so that the whole becomes a solid mass; the salt solution, on the other hand, remains wholly fluid.

The following simple experiment plainly shows

the conditions under consideration. A large test-tube is filled about one-third full with concentrated sodium-chloride solution, and upon this solution distilled water is so deposited that as little union as possible takes place. Even at a temperature of -5°C . ice-crystals, which extend downward as long *spicula*, can very soon be noticed in the uppermost *strata*. But even at -15°C . a certain limit is not exceeded. The lower, concentrated *strata* remain wholly free of ice even at -20°C . The ice can be lifted from the salt solution, and, on thawing of this ice, sweet water is obtained. Crystallization of water from solutions of all other salts occurs much more readily than from sodium-chloride, or even calcium-chloride, solutions.

Likewise, in solutions of albumin, such as occur in living beings, the water freezes out with difficulty, and only at high degrees of cold. The contents of a hen's egg, the yolk remaining intact, may be covered with distilled water and exposed to a temperature of -10°C . for three hours without undergoing congelation. Even after 10 hours' exposure at -16°C ., the whole egg, both white and yolk, can readily be cut. Only solutions of albumin strongly diluted with water freeze to stony hardness, because the mass of ice is in excess.

From what has preceded, it seems that, as a rule, the more rich the tissues of an animal or plant are in water, the more readily ice formation occurs within them. An animal whose tissues are rich in water can be frozen to a stone-hard mass without so much water being withdrawn as to necessitate the above described fatal destruction. When such a frozen animal is dissected, a sluggishly movable fluid can be seen macroscopically, and plainer microscopically, between the ice-needles infiltrating the tissue. Whether such an animal can continue to live after thawing plainly depends upon how slowly the thawing takes place and how great an amount of the water contained in the animal body was transformed into ice.

Under the microscope, on thawing one sees, upon thin sections through the tissues, the ice-needles change into droplets of distilled water. Between these and the concentrated albuminous solution of the blood and of the tissue juices there immediately originate violent diffusion currents, which cause such destruction of the finer structures that vital activity can no longer be re-established. Because of this diffusion, current induced by contact with animal and vegetable tissues, distilled water acts fatally upon living tissues within a brief time. How much more must this take place in our case, where

the tissue is infiltrated with ice-crystals which quite simultaneously become transformed into innumerable droplets of pure water, and synchronously begin their destructive action in all parts!

Thawing of frozen animals and plants, as well as frozen members of man's body, should therefore take place as slowly as possible. If, for example, the freezing took place at -5°C ., a continuance in a temperature of -2°C . cannot aggravate the condition; on the contrary, thawing of some ice-crystals will already have begun. Likewise, the temperature may only very gradually be raised to 0°C ., otherwise rapid and certainly fatal thawing of all ice-crystals occurs.

The old custom of packing frozen members of the body in snow, and not at once bringing the frost-bitten individual into a heated room, is thoroughly proper; and without adherence to this procedure, rescue is possible only in the rarest cases, namely, slight degrees of freezing. For the same reason plants are less often destroyed by intense frost than by the immediately following action of the sun's rays. Ice forms within the tissues of very dry plants at high degrees of cold only, while in the spring, when the sap has begun to ascend, a gentle frost can cause great destruction.

Now, from a purely chemico-physical aspect, let us consider the conditions prevailing in the experiments described.

When a substance separates in a solid form from a fluid mixture, the constitution of the latter is, as a rule, altered, and this alteration must always follow in the sense that the point of congelation of the remaining fluid sinks (*Nerust. theoretische Chem.*, Stuttgart, 1893, p. 110). This sentence is analogous to that which says the boiling-point of a mixture rises during distillation. For this to take place, the character of the solid substance separating on freezing is of no importance. Through continued separation of one or a number of substances from a fluid mixture by freezing, a fluid of lowest freezing-point is finally obtained. This fluid entirely congeals at a constant temperature. If a fluid mixture consists of but two substances, of which one separates in a solid form, the freezing-point of the fluid mixture is always lower than that of the fluid components. Therefore, the freezing-point of every watery solution is lower than that of pure water.

In the separation of water from animal tissues by freezing, there first occurs a concentration of the albumin contents of the tissue juices. Now, may the freezing-point be appreciably lowered as a result of this? Colloid solutions have a freezing and boil-

ing point varying but little from that of pure water. SABANEJEW and ALEXANDROW (*Zeit. f. phys. Chem.*, 1892) give the following figures obtained with egg-albumen:

Amount of Albumen in 100 gme. Water	Reduction in Freezing-point
14.5	0.020
26.1	0.037
44.5	0.060

Accordingly the albumin content of the body juices is hardly capable of bringing about any noteworthy reduction in the freezing-point.

The salt content of human blood is 0.85 per cent., chiefly sodium chloride and sodium carbonate. Sodium chloride is present in human blood serum to the amount of 4.92 per 1000—about 0.5 per cent. As is well known, sea-water, which contains 3 per cent. salts, of which 2.5 per cent. is sodium chloride, freezes only at -3°C . Here it must be remembered that, because of the great volume, the concentration of the underlying sea-water is not perceptibly increased through the freezing out of sweet water. If, however, ice forms in body fluids, the concentration of the salt solution proportionately rises, and with it the freezing-point so sinks that further ice formation soon ceases.

Hence chemico-physical causes are the factors which, for a greater or less period of time, prevent the crystallization of water in the animal body at moderate degrees of cold, and, when this has taken place, soon set a limit which is only exceeded by very much greater degrees of cold.

For the preservation of life, slow freezing is apparently less dangerous than sudden thawing. Frozen members of the body should therefore be thawed in a cold room by rubbing with snow; and it is proper for gardeners to protect plants more against the rays of the winter sun than against the cold air of night.

While, according to the above discussion, the possibility of restoration of an animal frozen to an ice-clump is unquestionable, this can take place only in the rarest cases of slight duration and in the presence of the most favorable circumstances.

Result of a Hoffa Operation.—HOFFA (*Verhand. d. deutsch. Gesellsch. f. Chir.*, XXIII, Congress, 1894) showed a specimen obtained from a three-year-old child who died of diphtheria after complete recovery from his operation for congenital dislocation of the hip. The pelvis showed that a good joint had been formed. The new acetabulum, which at the time of the operation was soft and spongy bone, was found to be covered with a complete layer of hyaline cartilage.

ORIGINAL CONTRIBUTIONS

INTRABRONCHIAL MEDICATION*

By JOSEPH MUIR, M.D.

Physician to the Lung Department of the New York Throat and Nose Hospital

MY attention was first called to the employment of intrabronchial medication, for the alleviation of the local symptoms attendant on certain pulmonary, bronchial, and laryngeal diseases, by an article which I observed several years ago in the *British Medical Journal*, written by Prof. T. GRANGER STEWART. Since then I have used this form of treatment in cases of phthisis, bronchiectasis, and bronchorrhea with marked success.

During the three years I have practiced it about forty patients have come under my personal observation, most of them suffering from tuberculous disease in various stages, in which, for the most part, the bronchial irritation was due to the pulmonary lesion. More or less improvement resulted in every case as a consequence of continued intrabronchial injections.

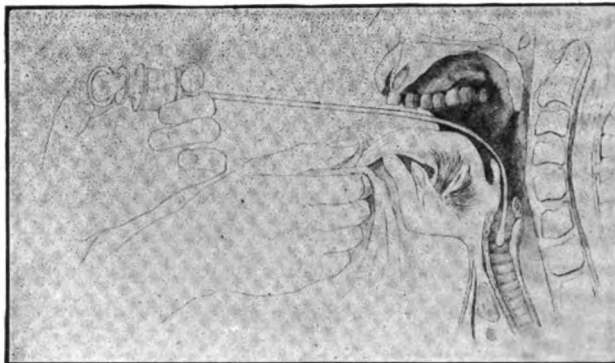
A persistent and distressing cough is usually the most stubborn symptom which accompanies these affections; frequently producing sleeplessness, feverishness, and vomiting; thus materially delaying the general progress of the patient. All kinds of sedatives have been resorted to in these cases to relieve the cough, with greater or less, but always temporary, advantage; besides, most of them, containing opiates as they do, exercise a deleterious influence on the system. Particularly is the use of opiates or sedatives containing them to be deprecated in treating aged people. The opiate diminishing the sensibility of the bronchial coats, the cough is necessarily relieved; sleep supervening, mucus accumulates in the respiratory tract and seriously interferes with the free access of air to the air-cells; carbonic acid collects in the blood, and death may ensue.

Our constant object is to relieve this and other troublesome symptoms by innocuous means; and to effect this there is not, in my opinion, a better mode of treatment than that afforded by intrabronchial medication.

The reason is apparent. Such conditions, displaying the common physical characteristics of cough and fetor of the breath, are ordinarily caused by an atrophic action operating on the walls of the bronchial tubes. The latter are abnormally distended by the pressure of air in the respiratory tract; and the decomposition of the mucus, which necessarily accumulates, produces anatomical changes in the coats of the bronchi, and lends to the breath that disgusting fetor which practically ostracises the individual from all intercourse with his fellow-man.

The febrile attacks and general disorder of the system, necessarily produced by the absorption of the noxious products of decomposition, are likewise traceable directly to the accumulation and corruption of the mucoid secretions.

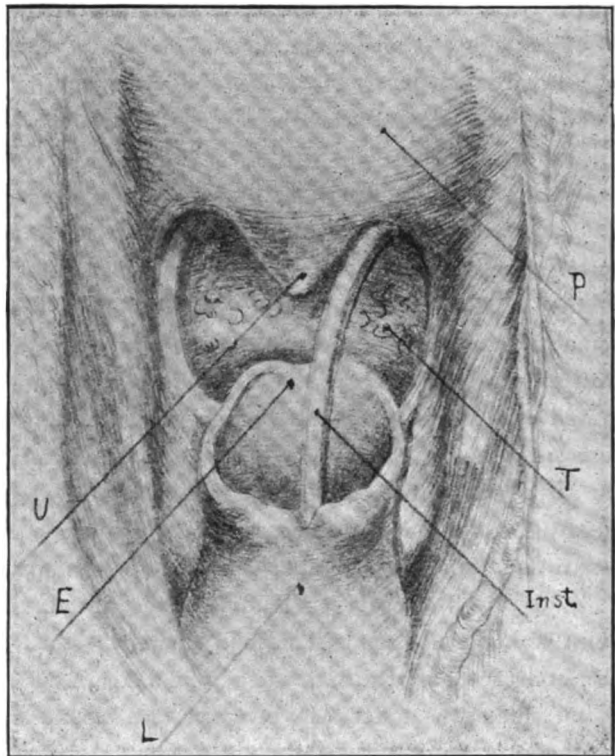
No suggestion has yet been offered to throw light on the dark problem as to how this atrophic action might be prevented; and at best, but a partial relaxation of the pressure on the weakened walls can



INSTRUMENT IN SITU.

be secured by alleviating the cough. Aside from the relief thus afforded, the best that can be done is to prevent decomposition.

To this end, creosote, carbolic acid, salol, turpentine, and other antiseptics have been administered internally. Various vapors and sprays have been employed; inhalations of all kinds have been tried; but rarely has any of these remedies touched the root of the disease.



THE PHARYNX AS SEEN FROM BEHIND.

P, soft palate; U, uvula; T, tongue; E, epiglottis; L, larynx; Inst., instrument in relation.

Experience would seem to indicate, as a better method, the local introduction of a non-irritating, antiseptic medicine, which the mucous membrane will readily absorb. That a ready absorption, by the mucous membrane of the bronchi, of the liquid injected takes place, there can be no doubt.

A process analogous to that of pneumo-koniosis

* Read before the New York Medico-Surgical Society, January 6, 1896.

's induced. The substance is taken up by the lymphatics, transported by the channels downward and inward to be deposited in tissue more or less remote, even sometimes as far as the thicker connective tissue of the lungs.

Of all solutions, those containing menthol are probably the most efficacious; not only relieving the cough, but possessing as well powerful deodorizing and antiseptic virtues.

A solution of $7\frac{1}{2}$ per cent. to 15 per cent. of menthol dissolved in benzoinol may be used, according to the amount and nature of the expectoration; to this may be added $\frac{1}{2}$ to 3 per cent. guaiacol.

In cases where the mucus expectorated is particularly offensive, I have utilized beneficially a 2-per-cent. solution of eucophen in place of the guaiacol.

Iodoform may be used for this purpose, but it is inferior to eucophen, which is a powerful antiseptic and is also free from the disadvantages of a disagreeable odor, and the insolubility in oil, both of which drawbacks iodoform possesses. Solutions of benzosol and salicylic acid, which I occasionally had recourse to, are objectionable, for the irritation and nausea they not infrequently produce.

To insure the patient's continued attendance, it is essential that the first two or three injections should cause little or no discomfort; it is advisable, therefore, to employ a 2-per-cent. solution of cocaine to the larynx until the patient has become accustomed to the operation.

One to four drams, administered in three or four injections, will ordinarily be found a sufficient dose, though in one case of purulent bronchitis I administered as much as an ounce at a single sitting.

The instrument used for the purpose is a glass and hard-rubber syringe with an endolaryngeal tube (made by Ermold). The capacity is half an ounce, and may be thoroughly sterilized and kept clean.

The patient's tongue is drawn out, the syringe is carefully placed in position, a deep inspiration is taken, the cords separate, the end of the instrument is introduced, and the fluid is injected.

The patient soon after experiences a sensation of warmth in the chest.

In cases of phthisis, where there is extensive cavitation, it is advisable, after the fluid has been injected, to instruct the patient to lie down on the side most affected; thus, by gravitation, the mixture will be more readily diffused. This treatment should be continued daily for some time, according to the nature and progress of the case; discontinuing for a week or ten days. It may be resumed, with intervals of three days between *each* treatment.

It may not be superfluous to mention that the right or left bronchus may be made to receive the bulk of the injection, if so desired, by pointing the end of the instrument to one side.

It should, however, be distinctly remembered that in phthisis intrabronchial medication is not a cure in itself. It is a palliative treatment, allaying the more distressing symptoms, and thus giving the

constitutional treatment (to which this is merely an auxiliary) a greater opportunity to effect a speedy cure.

New York; 34 West Thirty-third street.

STATISTICS RELATIVE TO THE MILK SUPPLY OF NEW YORK CITY*

By GEORGE B. FOWLER, M.D.

INTRODUCTORY to what we intend to say tonight and to give you a somewhat comprehensive idea of the general subject of milk, I have prepared from the records of the Board of Health certain statistics bearing upon this very important food and commercial commodity.

In the first place, it will be interesting to you to know what is the daily average of milk receipts in New York city, and their sources; and the table upon the wall gives in the first place the railroads, and next the States and counties from which the milk comes.

You will see that the total average is figured up in cans of 40 quarts each, 19,164, equal to 766,560 quarts. Seventy-eight and eight-tenths per cent. of this comes from New York alone. That is a very significant fact, bearing upon certain legislation which the State Board of Health has taken into its hands, looking to the supervision of the supply of milk that comes into the city of New York. If we can control New York State we can control 78 per cent., and we will eventually force the other States to legislate according to our own ideas.

The table represents the yield of about one hundred thousand cows, and I suppose ninety thousand cows are in the State of New York. The State Board of Health is allowed \$20,000 to pay salaries and to compensate the owners of cattle, including horses with glanders, when they are condemned and killed. We have only five inspectors for the State of New York, and therefore you see how impossible it is for them to cover the whole State and how important the work is. We should have \$400,000 and we should have perfect supervision, and every can of milk should have certificates accompanying it that the cattle have been recently inspected by the veterinarian.

Now the Board of Health of the city of New York, under the supervision of the Division of Food Inspection, has divided the city into 10 districts, indicated by this diagram. We have the number of venders of milk, their particular business, the number of cans of milk, and so on; so that we see in District 1 there are 413 grocers, and a total of 4737, and running down to the bottom, in all the districts, 6579 people in business who sell milk; about one thousand less than there are gin-mills. There are seven thousand of these, I believe. The supplies for hotels come direct to the consumer from the farms, and are not indicated upon this table.

* Read at Academy of Medicine, Section on Public Health, January 20, 1896.

The following table shows the work of the Milk Inspectors for the year 1895:

Number of milk inspections.....	72,036
Number of specimens examined.....	99,080
Number of citizens' complaints.....	166
Number of quarts of adulterated milk destroyed.....	2,677
Number of arrests.....	408
Number of trials.....	398
Number held on bail.....	364
Fines.....	\$12,260
Days in jail.....	87

York to send milk to this market. The railroads are encouraging them by charging the same rate per can to New York as they do for those that are nearer—32 cents per can. From Hornellsville the rate is the same as from a place nearer at hand.

That is about all that I have to say, because the evening is to be devoted to showing what is the modern process for analysis, detection of adultera-

TABLE NO 1.—DAILY AVERAGE MILK-SUPPLY OF NEW YORK CITY
(Including Cream and Condensed Milk Given in Cans of 40 Quarts Each)

TRANSPORTATION LINES

	Local Ferries	Susque- hanna R.R.	Lehigh Valley R.R.	Homer- Ramsdell T. Co.	New Jersey Central R.R.	Long Island R.R.	D., L. & W. R.R.	New Haven R.R.	West Shore R.R.	Northern R.R.	Ontario & Western R.R.	N. Y. C. & Harlem R.R.	Erie R.R.	Totals
<i>Outside States:</i>														
Pennsylvania.....			477				25				70		156	728
New Jersey.....	250	1487			218		255						311	2521
Connecticut.....								630			47			677
Massachusetts.....								131						131
<i>New York Counties:</i>														
Broome.....							405						354	759
Chenango.....							814				742			1556
Chemung.....							41						26	67
Columbus.....											37	195		232
Cortland.....							829							829
Delaware.....							13		703		679		73	1468
Dutchess.....				175						219	120	1069		1583
Herkimer.....							368		20					388
Kings.....	35													35
Madison.....							511				424			935
Otsego.....							334				110			444
Oneida.....							291				116			407
Onondaga.....							52							52
Orange.....				683							201		2454	3318
Putnam.....										169		198		367
Queens.....	200					12								212
Richmond.....	15													15
Schoharie.....							55							55
Steuben.....													57	57
Sullivan.....											483		242	725
Tioga.....			50				225						70	345
Tompkins.....							41							47
Ulster.....									557		20			570
Westchester.....	75									132		423		631

TABLE NO. 2.—MILK CENSUS

<i>Business:</i>	Dist. 1	Dist. 2	Dist. 3A	Dist. 3B	Dist. 3C	Dist. 4A	Dist. 4B	Dist. 5A	Dist. 5B	Dist. 6	Totals
Grocers.....	413	686	310	459	445	708	334	760	340	279	4737
Bakers.....	36	112	9	26	63	125	55	153	113	61	753
Delicatessen.....	8	17	1	7	25	89			69	18	234
Confectioner.....	8	26	2			3	22	14	2	5	82
Dealer.....	29	69	18	14	54		40	83	24	8	430
Dealer and route.....						91	29	9			38
Tea-store.....		1	1			2					4
Butter and eggs.....	12	45	29	53	3				56	9	207
Restaurant.....	5	2			1	1			4	3	16
Dairy.....	1				15				3	1	20
Market.....					1			1			2
Farmers.....										56	56
Notions.....									3		3
Total in districts..	512	958	370	559	607	1019	480	1020	614	440	6579

One curious thing suggests itself here—an interesting one regarding the counties from which this milk comes. We see, of course, Orange county is ahead of all the rest; then come Delaware, Chenango, and so on. We have here a map of the State of New York, showing its counties. We would expect the supply to come from the nearest counties, but I am informed that as far out as Steuben county we have quite a supply; and the railroads and the Board of Health—those of us who have looked over this matter—are encouraging the citizens of New

York to send milk to this market. The railroads are encouraging them by charging the same rate per can to New York as they do for those that are nearer—32 cents per can. From Hornellsville the rate is the same as from a place nearer at hand.

Questionable Modesty.—*Anxious Parent* (exultingly) to *Consultant*—It was you who did it. I knew when we asked for you we would be safe.

Wily Consultant (modestly)—Well, we all do the best we can. Your doctor is a very good man. To tell the truth I was surprised to find that he understood the case so well. You say he changed the treatment at once. Well, I might have been mistaken myself. It's wonderful to see what little things will do.—*Medical Record*.

METHODS EMPLOYED FOR THE PREVENTION OF THE SALE OF ADULTERATED MILK IN NEW YORK CITY*

By EDWARD W. MARTIN, Ph.D.

Chemist to the Health Board of New York city.

THE methods employed by the Health Board to prevent the sale of adulterated milk and to insure to the consumer in general a good quality of pure milk are probably but little known to the general practitioner and to the laity throughout the metropolis. The magnitude of the work and the difficulties encountered, likewise, can hardly be appreciated by those unfamiliar with this kind of work.

The purpose of my brief remarks to-night, therefore, will be to outline in a general way, without going into every detail, the methods employed, and the difficulties which confront the health authorities and also to give some of the results that have been accomplished.

To enable the Health Board to successfully keep a close watch upon the sale of this important article of food and to detect and prevent its adulteration, the city has been divided into six districts corresponding with the judicial-court districts.

The milk inspectors are constantly making their rounds through these districts, testing the milk, in every instance in which there is the slightest suspicion of adulteration or that everything is not just as it should be. The inspectors are required to make a note of the registration of the thermometer and of the caltometer. The number of the instrument used is also noted. This accomplished, the name of the dealer is secured and noted. The sample tested is then numbered, and the number of the police officer who accompanies the inspector in his rounds is also added to the memorandum for future identification if it is needed.

Two clean bottles are then filled with milk from the sample in question and sealed in the presence of the officer who accompanies the inspector. One of these bottles is placed in the hands of the department chemist of the Health Board, who furnishes the inspector with a receipt for the same. The second bottle, which was taken at the same time and sealed with equal care before the officer, is placed in the hands of the milkdealer, so that he can, if he so desires, have identically the same sample analyzed independently by any chemist that he may select for his own satisfaction.

This method of procedure is a protection to both the Health Board and to the dealer.

Further than this, a record of each dealer in milk throughout the city is accurately kept by the Health Board for ready reference.

At this point I might state—to show what has been accomplished and what we have to contend with in some instances, in the persistency of some dealers to sell and to adulterate milk—that in one instance the same individual was arrested and fined six times between the years 1887 and 1893. The fines paid by

this one dealer during this time aggregated \$1000. This in itself would indicate that in so far as the dealer is concerned, the adulteration and sale of adulterated milk are quite a profitable business; hence the great necessity to be constantly on the watch to detect these dealers who are ever ready to adulterate and to sell adulterated milk. About 99 per cent. of the adulteration is found to consist in the addition of water and the removal of the cream.

This brief *résumé* will, I think, show what has been accomplished in this line of work.

MILK ANALYSIS, WITH SPECIAL REFERENCE TO THE DETECTION OF ADULTERATIONS*

By ERNEST J. LEDERLE, Ph.D.

THE principal adulterations of milk are, in the order of their frequency, the addition of water, the removal of cream (skimming), and both watering and skimming. Less frequently we find foreign substances added for various purposes; as the use of antiseptics or preservatives, which, as their name indicates, are added to milk and especially to cream, for the purpose of increasing their keeping qualities. Coloring agents are used to give to milk a richer appearance, especially when adulteration has made it appear bluish and thin. These colors, almost exclusively annatto, carotin (both butter-colors), and caramel (burnt sugar), are themselves perfectly harmless. There is no proof that any injurious aniline colors have been used.

The Addition of Water.—There are two important sanitary reasons why this fraud is a very grave one. The addition of water reduces the nutritive value of this important food; and this, in the case of infants and invalids, depending wholly or in part thereon, becomes a serious matter.

The addition of impure water, as the water from a polluted well, may introduce pathogenic germs into the milk and give rise to epidemics of typhoid fever, scarlet fever, etc. The numerous cases of typhoid fever at Stamford, Conn., were directly traced to milk supplied by a farmer who had the disease in his family, and who washed the milk-cans with the water from a polluted well. The addition of water, containing as it usually does very large numbers of bacteria, must influence the keeping properties of the milk.

Detection of the Addition of Water, by Chemical Analysis.—Sampling.—In making a chemical analysis of milk it is very important to know that we have an average sample. If the sample is to represent the milk of one cow, care should be taken that the cow has been milked dry, as the first portions of the milk, the so-called “fore milk,” is much poorer in solids, especially in butter-fat, than the last portions, or “strippings.” The following partial analysis will show this difference:

	Fore Milk	Strippings
Water	90.00%	84.00%
Fat	1.00%	5.80%

From the whole milk, after careful stirring, a sample is to be taken for examination. In the case

*Read before the Academy of Medicine, Section on Public Health, January 20, 1896.

of commercial milk, if in a can, contents to be well stirred, preferably with a stirrer made of a metal disc, perforated and fastened at right angles to a handle. Rotary stirring with an ordinary dipper will not thoroughly mix the milk. If sample is in a bottle, and bottle is completely filled, shaking will not give a good sample. In this case pour from one bottle to another, back and forth, until thoroughly mixed. The sample taken for analysis should not be acid sufficiently to cause any separation of the casein, which would interfere with the proper sampling.

If sample is churned—that is, the fat has aggregated in lumps—an average sample cannot be obtainable, unless the emulsion is again restored. For ordinary work this can be done by adding one drop of ammonia-water and shaking. As much care must be taken with these preliminary tests as in any part of the work. The *determination* usually made for the investigation of ordinary adulterations are:

Water;
Fat;
Salts (ash).

If it is desired to determine the total solids only (water), we can use dishes for evaporation made of tin and lead, as used for bottle caps, of a size $2\frac{1}{2}$ ins. in diameter and $\frac{1}{2}$ in. deep. These dishes are very cheap, and have proved very satisfactory where no greater heat than a little above that of boiling water is used. If the salts are to be determined, it will be necessary to use a platinum dish, to resist the great heat used for ignition. A dry dish is carefully weighed, and, by means of a pipette, 5 gme. of milk are introduced. The dish is placed on a water-bath until the residue appears dry; it is then transferred to an air-bath, having a constant temperature from 100 to 105° C., where it is allowed to remain for $2\frac{1}{2}$ hours. On removal from air-bath, the dish is placed in a desiccator (a drying-chamber) to cool. When cool, it is weighed, and the increase of weight represents the total solids in 5 gme. of the milk; and from this we calculate the percentage of total solids. The water is found by difference. To insure absolute accuracy the dish should be returned to the air-bath and reweighed at intervals of 10 to 15 minutes, until there is no appreciable loss. The solids should be at least 12 per cent. (water not over 88 per cent.). For accurate work, round-bottom dishes, especially those of glass, should not be used in the determination of the total solids. All methods involving the use of drying agents, as sand, etc., should be avoided.

Determination of the Fat by Chemical Analysis.—The present official method is called Adams's method, but the older one so long used is so simple and sufficiently accurate for all but court purposes (it gives results 0.25 to 0.35 lower than Adams's) that I will describe it. The dish obtained above, containing the dried milk solids, is treated repeatedly (eight to ten times) with ether—the ordinary dry ether (anesthetic) or petroleum ether—by almost filling dish with same and allowing to come to

a gentle boil on the water-bath, then carefully decanting the solvent, leaving the fat in solution, into a beaker glass. The solids are again dried to constant weight in the air-bath, and the loss now represents fat.

The more refined method, Adams's, is as follows: A strip of paper called "fat-free" (each lot should be tested to see that they really are "fat-free"), being 22 ins. long and $2\frac{1}{2}$ ins. wide, is rolled into a rather loose coil, this held in place by a clamp. Five grammes of milk are weighed in a dish and absorbed by the coil of paper by holding one end, and then the other, into the dish, until the last drop has been taken up. The milk is now found to be distributed over a very large surface, and the fat can, in the subsequent extraction process, be readily dissolved by the ether. The coil is dried in the air-bath (two-and-a-half hours), and is then placed in a glass extraction apparatus of the form known as "Knoffler's extraction apparatus," and extracted two-and-a-half hours with ether. The flask of the apparatus has been previously weighed. After distilling the ether from the flask, now containing the fat, and drying the latter one-half hour in the air-bath as above, we weigh the flask, and the increase represents the butter fat in 5 gme. of the milk. Calculating the percentage, we should have, according to New York State law, at least 3 per cent. of fat. As average herd milk, at this season of the year, has 4 to 4.50 per cent. of fat, we can readily see what an inducement to skimming is offered.

To judge of the quality of a sample of milk, we must have some standard to compare it with. The New York State standard is:

Water	Not over 88.00 %
Total solids ..	Not less than 12.00 %
Fat	Not less than 3.00 %

Fair, average milk would be:

Solids	12.50 to 13.00 %
Fat	3.50 to 4.00 %

Determination of Ash or Salts.—When in the determination of the total solids a platinum dish has been used, the dish with the solids is placed on a platinum triangle, and is heated to a dull red heat, until the contents appear white or grayish; that is, when all the organic matter has been burned off. As the salts contain volatile chlorides, it is important that as low a heat as possible be used. On cooling, the dish is weighed and the percentage of ash calculated. The average percentage of ash in commercial milk is 0.72 and is quite constant, rarely falling below 0.70 per cent. or going above 0.80 per cent.

Watering, of course, reduces the salts, and the addition of any non-volatile salt increases them. When the salts are found to be abnormally high, the ash must be examined for special adulterations, as below.

Antiseptics.—The most commonly used are:

Boric acid (especially for cream),
Borax,
Salicylic acid,
Fluorides.

The use of all antiseptics for milk and milk-products is prohibited, and very properly so. In some cases the salt is itself injurious, in small repeated doses, especially in children and invalids. The use of antiseptics offers great inducements for carelessness in the proper cleaning of dairy utensils.

Detection of Antiseptics.—Most of these salts are easily detected. Their estimation involves the most delicate chemical manipulations and is too extensive to permit of my going into detail here.

BORACIC ACID AND BORAX.—About 4 oz. of the suspected milk are placed in a platinum dish and evaporated to dryness, having made the milk strongly alkaline with soda or potassium hydrate. Ignite and to the residue add enough sulphuric acid to make strongly acid. The alkali was added for the purpose of converting boric acid, in case it was present, into a borate, the former being volatile and the latter not. The strong acid liberates the boric acid, and we now add about a tablespoon of alcohol (wood alcohol preferred), and, placing the dish in a dark place, the alcohol is lighted, when, in case a trace of boric acid or borax had been present, the alcohol would have burned with a grass-green flame.

SALICYLIC ACID—This is detected, as in case of any food, by extracting with ether, allowing this to evaporate, taking up with a little water a drop; of neutral ferric chloride added will, if a trace of salicylic acid were present, form a violet coloration.

FLUORIDES.—Fluorides are coming into quite extensive use as preservatives. They are used for beer, oysters, meats, milk, etc. The quantities used are extremely small, and detection is consequently doubtful, as the ordinary tests are not very delicate. They may be detected in the ash of milk, which is made acid with strong sulphuric acid, and causing the liberated hydrofluoric acid to act on glass, which it attacks.

The Lactometer.—This is a special form of hydrometer or sp.-gr. spindle, specially graduated for use in milk. The two principal points on the scale are the 0, which is equivalent to 1 on the hydrometer and is the point at which the instrument floats in water at 60° F.; and the 100 mark, corresponding to (in the Board of Health instrument) 1.029 on the hydrometer, it having been found that pure mixed milk rarely, if ever, falls below that point. The scale between 0° and 100° is divided into 100 equal parts; hence each division represents 1 per cent. These divisions have been carried above the 100 mark to about 120°. The reading of the lactometer of course simply means sp. gr., but it has been found by large experience, besides the sp. gr., other valuable data may be obtained by the intelligent use of the instrument. The manner in which a creamy sample adheres to the bulb of the lactometer, and the absence of this adhesion in the case of a skim sample; the peculiar bluish color of adulterated milk as shown by the dark background of the shot in the bulb,—are all very important items in judging a sample of milk. Without this intelligent observa-

tion the lactometer is of no value. Commercial milk—the milk as it comes into the city in 40-quart cans, and representing the milk of a number of cows—has an average lactometric standing of 108 at 60° F. The removal of cream increases the sp. gr. and hence the lactometric standing, and we find skim-milk standing 101 to 123, and at the same time it is bluish and runs from the glass without leaving a greasy film. The addition of water reduces the sp. gr. and consequently the lactometric standing. A sample of commercial milk (not being cream) which at 60° F. has a lactometric standing of less than 100, is adulterated milk and has been adulterated by the addition of water, and perhaps the removal of cream, depending on the appearance, etc. A sample of milk having a lactometric standing above 100 may be:

- (1) Pure milk;
- (2) Skim-milk;
- (3) Watered and skim milk.

Let us study these three cases more closely, as we are now considering the strongest argument brought against the lactometer, an instrument which, it is said, may read the same in a sample of pure milk as in a sample of milk which has been doubly adulterated. I can only say to this, that you must not expect too much of the instrument. The person using it must do the judging. It is of course absurd to expect that any person without experience can drop a lactometer into a fluid and from the mere standing of the instrument determine: (a) Whether the fluid is milk; (b) if milk, whether good or bad.

In connection with the use of the lactometer on thousands of samples, it has been found that pure milk, while having a sp. gr. varying between certain limits, also exhibits certain physical properties not easily defined: Its color is faintly yellow; it clings to the instrument; its taste is characteristic; it shows a certain amount of opacity.

In case of sample (2), where some or perhaps nearly all of the cream has been removed, the lactometric standing is high, and the physical properties of the milk are entirely changed. Sample looks blue and thin, it no longer clings to the glass, but runs from it, leaving it clear. This is especially noticeable at the bulb, where the shot forms a dark background. Try a sample of pure milk with the lactometer, and at the same time a skim sample, and you will see these differences at once.

In the case of (3), skim and watered: To the sample of skim-milk add water until the lactometric standing of the mixture is the same as was the pure milk (1).

Again, it would be said, of what value is the lactometer? Try it. If the physical properties of (2) have been changed sufficiently to be readily seen, how much more apparent would it be after the addition of water? Surely there would not be much danger of mistaking the skimmed and watered sample for pure milk, or the watered sample for cream, or the reverse!

Milk which has been skimmed and watered is

technically known as "Board of Health milk"; that is, prepared to deceive the lactometer. How successful the ruse is, can be seen from the chart of fines for milk, 1895—over \$12,000! Of course this and other adulterations may be, and no doubt are, practiced daily to a certain extent, as we can only take notice of those which come within the legal definition. After years of the most bitter criticism from various sources, the lactometer, *intelligently* used, stands to-day the most useful, simple, and rapid test for the examination of large numbers of samples of milk. During all this time of criticism, it is curious that nothing has been offered to take the place of the lactometer. It is a useful instrument as far as it goes, and until something better can be offered us we must use it. Of course, where it is necessary, as for prosecution, to determine the amount of the adulteration, chemical analysis must be resorted to.

Rapid Tests for Cream and Fat.—*Cream-gauge.*—Consists of a test-tube about 12 ins. long and graduated, so that each division represents 1 per cent. by volume, the 0 being near the top, and scale running down. Milk is poured into the tube to the 0 mark; the tube, supported in a rack, is placed in an icebox or in cold water; and after twelve hours the cream volume read off. Good milk should show from 12 to 16 per cent. of cream, corresponding to $3\frac{1}{2}$ to $4\frac{1}{2}$ per cent. of butter-fat. This test can be easily made at the farms and dairies with fresh milk, but in the case of city milk it is found that the cream rises with great difficulty. A modification of the test which shows the cream volume in one to two hours is as follows: The cream-gauge is divided by a mark into two equal parts. Milk is poured into the tube to this mark and filled to the 0 mark with water at a temperature of 150° F., containing a pinch of sodium carbonate. Mix contents by shaking, and place in ice-water. Usually can read in one hour.

FESER'S LACTOSCOPE.—This is used for the rapid estimation of fat. It depends on the principle that the more fat a milk contains, the more opaque it is, and the more water must be added to bring it to a certain degree of transparency. A pipette full of milk is placed in the tube, and water is added, little at a time, shaking well after each addition, until, when holding from the light at arm's length, certain black lines on a white ground can be distinctly seen. The figure at the level of the mixture in the tube represents percentage of fat. By practice one can read this instrument within 0.25 per cent. of the actual percentage and the personal error can be determined by comparison with the analytical method.

THE CENTRIFUGAL MACHINE.—During the last few years the principle of the centrifuge has been applied with great success to the estimation of fat in milk. I know of no one other thing that has proved of such great value to the dairy interests. I shall leave for a future article the description of the new steam turbine centrifuge, holding twenty samples at a time, which we are now operating.

New York; 120 West Ninetieth street.

REMARKS ON THE SIGNIFICANCE OF MICRO-ORGANISMS IN MILK *

By ROWLAND GODFREY FREEMAN, M.D.

Pathologist to the Foundling Hospital; Pathologist to St. Mary's Free Hospital for Children; Assistant Physician to Roosevelt Hospital, Out-patient Department

MILK contains no bacteria as it exists in the udder of a healthy cow. Some bacteria may exist in the lower portion of the milk ducts, but sterile milk may be obtained from a healthy cow by the introduction of a sterile catheter. On the other hand, the bacteriological examination of the ordinary milk of cities shows a most surprisingly large contamination with micro-organisms. There are usually several million present in each cubic centimeter—a cubic centimeter being equal to about fifteen drops. Sometimes only 50,000 will be found, and again more than a hundred million. In one specimen of raw milk, about a month old, which was still sweet, I found 450,000,000 in 1 c.c., or 15,000,000 in each drop. The large number of bacteria contained in our ordinary milk-supply seems startling to most men, but from some physicians will simply draw the remark, "Well, what harm do they do?" It is to the answer of this question that I shall ask your attention to-night.

These micro-organisms of milk may be classed as non-pathogenic and pathogenic. Concerning the latter class, the pathogenic, I shall speak later. The non-pathogenic micro-organisms of milk are air bacteria which happen to be present in the dust of the building in which the milk is handled, bacteria in the dirt of the hide of the cow or on the hands of the milkman, or in the water in which the pails are cleaned. Mold and yeast are also usually present. The reason why city milk is not sterile is because it is obtained from a dirty cow, in a dirty barn, usually by an equally dirty man, and is consumed thirty-six to forty-eight hours after it is drawn from the cow, the consumer being sometimes as much as three hundred miles distant from the cow that produced the milk. Milk drawn by clean methods, cooled rapidly, and delivered quickly—in not more than twelve hours—contains usually only 100,000 as many bacteria. It is evident, then, that these non-pathogenic micro-organisms which are contained in our milk in such large numbers mean dirty dairy methods and a slow delivery to consumers. While these bacteria are classed as non-pathogenic, there may be some among them which are pathogenic and cause diarrhea in children. These non-pathogenic bacteria also produce the souring of milk.

The same dairy methods which allow so many micro-organisms to enter milk favor also the entrance of pathogenic bacteria when they happen to be present either in the dried fecal matter of the posterior portion of the udder of the cow, in the sputum of the cow, on the hands of the milkman, in the water used for washing the pails, or in the dust of the barn. Pathogenic bacteria may also enter the milk while it

* Read before the Section on Public Health of the New York Academy of Medicine, January 10, 1896.

is still in the udder, either from some general disease of the cow or some disease of the udder.

Of these pathogenic bacteria in milk we may obtain knowledge, either by demonstrating them in the milk in stained specimens, or by culture, or by inoculation into animals or by the results produced in consumers of the milk. In the case of many diseases our knowledge is obtained only by the last method. A large proportion of the consumers of a milk-supply will on the same day or days become sick in the same manner, their neighbors who drink other milk being exempt. There is probably no better example of the methods of experimental medicine on a large scale than the wholesale poisoning of consumers by contaminated milk. Singularly enough in expensive experiments like these the obvious conclusions are usually ignored, as is not apt to be the case in planned experiments. We know of very many epidemics of typhoid fever, scarlet fever, and diphtheria, and some of throat disease, gastro-enteritis, and foot-and-mouth disease caused by milk; although in most of these cases the pathogenic organism has not been found in any sample of the milk examined, owing to practical technical difficulties and the fact that the particular sample which caused the epidemic does not reach the bacteriologist, but one taken some time later. When these diseases have been spread by milk, it is probable that the germs originate from some case in man or in the cow. If from man, they are conveyed to the milk either by the hands of the milkman or by contamination of the dairy water with feces or other infectious material from some one suffering from the disease, or by infectious material in the dust of the barn. If from the cow, either by contamination in the udder or by feces or sputum or by dried particles from the feces or sputum in the dust.

The pathogenic organism which is most often contained in milk is probably the bacillus tuberculosis. Tuberculosis is very common in cattle. From the use of tuberculin in New York State it would seem that probably 7 per cent. of all the cattle of the State are tubercular. Recent researches by ERNST, and BANG and others, have shown that cows with general tuberculosis and no disease of the udder are liable to give milk containing the tubercle bacillus. Our city milk being a mixture of the milk of a number of cows, is thus very liable to contain some tubercle bacilli, although in smaller numbers than if the milk of the tubercular cow were not mixed with that of healthy cows.

These tubercle bacilli are difficult to find in the stained specimen of any sample of milk, because they do not occur abundantly. Inoculation experiments are therefore resorted to, but positive results are only obtained after a month. Physical examination of cattle often fails in detecting existing tuberculosis in cattle, even when the disease is fairly advanced. In the case of this disease, however, we have a safeguard in the use of the tuberculin test in herds. Tuberculin has been proved to be harmless to non-tubercular cows, while a most

delicate test for tubercular disease. It would seem now that this substance might, by proper regulation by law, be made an important factor in an effort to secure a safe milk supply, as well as later, perhaps, lead to the extermination of this pest among cattle. It is to tuberculin that we must look for protection against tubercular contamination of milk.

Summary.—1. Milk, as delivered in cities, contains a vast number of bacteria, their presence being due to defective dairy methods and slow delivery of milk to the consumer.

2. A large amount of sickness has been caused by the presence in milk of the germs of typhoid fever, diphtheria, scarlet fever, and tuberculosis.

3. The number of these pathogenic micro-organisms in milk can be materially diminished by proper dairy inspection and control, while in tuberculosis proper legislation might lead to the stamping-out of this disease in cattle.

New York; 205 West Fifty-seventh street.

THE RESULTS OF CERTIFYING MILK*

By HENRY L. COIT, M.D.

IN 1890 I became interested in an effort to procure a better milk-supply in large cities, looking at it from the standpoint of the physician. My first attempt was to obtain better milk through the State Medical Society of New Jersey, but after two years I failed to accomplish what I desired. The great point was to insure control over the production of the milk at the source of supply.

I finally received from three State officials three very discouraging letters. From the State Board of Health I was informed that there were no funds for the purpose. From the State Dairy Commissioner I received a similar communication, in which it was stated also that we could not probably get a better milk in our cities during the present generation. From another source I received a similar opinion regarding the purity of our present milk supply. I then formulated a plan providing for a compact between physicians and certain dairymen, so as to obtain a limited supply of pure milk. I organized a committee of seven or eight physicians in Essex county, and this committee was to enter into a legal contract with a responsible dairyman. Under this contract three or four experts were to be employed by the committee and paid by the dairyman, and they were to supervise the dairy and see that the conditions of the contract were carried out. When these inspectors were satisfied that the conditions of the contract were fulfilled, their reports were to be the basis of certificates to the dairyman. I succeeded in interesting, among others, Professor LEEDS, of Hoboken; Professor LIAUTARD, the veterinarian; Dr. T. M. PRUDEN, and Dr. R. G. FREEMAN. They have all given valuable aid in the development of this plan.

Now, as to the results. While the physicians are forbidden any financial interest in this scheme, there

* Read before the New York Academy of Medicine, Section on Public Health, January 20, 1896.

has been a financial success to the dairyman, who has met with the approval of the committee. He will bear me out, I am sure, in the statement that there is money in trying to please the doctors in this matter.' When I first met this dairyman, he was sending out 800 quarts of milk a day; now, after two years, his output is over 2000 quarts a day. I think this is a demonstration of the broader truth that there is money in doing what is right. I have yet to meet with any individual who has become familiar with this attempt who has not given it his approval and promised support. I have also been informed that the general supply of milk in the neighborhood of Essex County has been raised in its standard very materially by this effort of ours to secure good milk.

I am not quite so certain as yet as to the purely scientific results of this scheme. The milk is certainly far better for infant-feeding than any heretofore obtainable in our market. By chemical supervision at the dairy we are able to secure a milk uniform in its nutritive value—a very important matter in connection with infant-feeding. Professor LEEDS, in a series of seven recent analyses, found that there was a very small difference in the percentage of milk fat obtained in the seven specimens on alternate days. These specimens also gave us important information regarding the feeding of the cows. The committee has not been able to give the bacteriological side of the question sufficient study. At one time in the summer we were able to reduce the number of micro-organisms to 3400 per c.c. We have done still better than this in several special experiments, and the outlook in this direction is certainly very promising. The health officer of Newark has already expressed the opinion that the death-rate among infants has been lowered as a result of this improvement in the milk-supply. I believe that this scheme will, in the near future, not only contribute a number of important scientific facts, but, if duplicated in other parts of the country, we shall soon have but little to desire in regard to the milk-supply. Dr. SNOW, of Buffalo, has already adopted the plan in his city.

Newark, N. J.; 51 Halsey street.

Cremation Statistics

Up to September of last year, 1566 bodies were incinerated at the Fresh Pond (N. Y.) Crematory. *The Urn* gives an interesting summary of the nativity and sex of the cremated bodies. More than half were Germans, and males predominate greatly.

The birthplaces are as follows:

Germany	820	Holland	6
United States	518	Sweden and Norway	5
England	49	Belgium	4
Switzerland	33	India	4
Austria	31	Russia	4
France	25	Australia	2
Ireland	15	Canada	2
Hungary	13	West Indies	1
Italy	9	Asia Minor	1
Denmark	8	On Mediterranean	1
Scotland	7	South-Sea Islands	1
Cuba	6	Unknown	1

They are further classified :

Men	1012	Women	411
Boys	82	Girls	61

THE DIFFICULTIES AND DANGERS OF OCCIPITO-POSTERIOR POSITIONS

By ANDREW F. CURRIER, M.D.

A DISTINGUISHED American obstetrician recently said: "If I were asked what one obstetrical difficulty in my experience had caused most maternal and fetal deaths, what one had caused most maternal and fetal accidents, not necessarily fatal, accidents, however, often making the rest of life worthless, or, still worse than merely worthless, a tragedy, I think I would say occipito-posterior positions where the occiput had rotated into the hollow of the sacrum, and which had been improperly treated" (PENROSE: "Am. System Obstetrics," I, p. 576).

This author is not alone in the opinion which has been quoted. I have heard the same sentiment expressed both in public discussion and private conversation by other obstetricians of large experience and skill.

For myself, in a practice extending through 15 years, with an obstetric experience which, though not large, has had rather more than the usual proportion of cases which required surgical interference, no complications have given me anxiety and trouble during parturition to the same extent as those which were associated with the posterior position of the occiput, the latter refusing to rotate to the front.

WINCKEL states that 1.26 per cent. of vertex presentations are of this type.

LITZMANN, who has done more than any one else to elucidate the difficulties of this position, states that 1.2 per cent. occur in normal pelves, 10 per cent. in flat and 20 per cent. in generally contracted pelves (*Arch. f. Gyn.*, II, p. 433).

GOTTSCHALK, in a recent article upon the subject (*Berlin. klin. Wochen.*, Jan. 15, 1894, p. 59), states that its causes are not yet fully understood.

Before considering the mechanism of labor in this position I wish to narrate briefly the histories of three cases which will serve as types of those which have come under my observation:

Case I.—Mrs. F., primipara, 18 years of age, wife of a physician in Greenwich, Conn., seen in consultation in May, 1893. The patient was large and well formed and the pelvis ample in all its diameters. Gestation had been normal with the exception of persistent gastric trouble. The general condition was excellent when labor began, which was early in the morning, and violent pains continued all day. I was summoned by telegraph, and reached the bedside at 7 in the evening. The first stage of labor was concluded and the membranes had ruptured. Chloroform was at once administered, the occiput found in the hollow of the sacrum and turned toward the left sacro-iliac synchondrosis. The forceps was applied and direct traction followed by axis traction until extraction was found impossible. Dührssen's incisions were then made in the cervix, the forceps reapplied, and the head rotated a quarter of a turn into the left oblique diameter. Delivery was then effected without difficulty. There was

very little laceration of the soft parts and the mother made a prompt recovery. The heart action of the child was very feeble at birth and resuscitation was impossible. The mother quickly became pregnant again and was delivered at term without mishap.

Case II.—Mrs. S., primipara, 30 years of age, wife of a physician in New York city, very large, with ample pelvis, gestation normal, confinement in June, 1893. Labor proceeded very slowly, and the husband was unwilling that anything should be done until the fourth day. Occiput in the hollow of the sacrum. The forceps was applied and delivery effected by direct traction, with much laceration of the tissues. The child was a female of moderate size and survived. The mother had a long and tedious convalescence, plastic operations being performed on the cervix and perineum six weeks after her labor. Melancholia resulted, from which she eventually recovered.

Case III.—Mrs. McF., multipara, 31 years of age, large and well developed. I attended her in her first labor in August, 1893, a month later than her expected time. After labor had continued 36 hours I delivered her with forceps of a large male child without much difficulty. In her second pregnancy she aborted at an early period. Her third pregnancy was expected to terminate the last of March, 1895. I saw her only once during pregnancy, a few weeks before her confinement, when she said she was in good condition. A week before her labor her niece died suddenly in her arms, from perforation of a duodenal ulcer, vomiting and purging over her just before death. An autopsy was performed in her house, causing great excitement. Labor began at noon, March 25; progressed rapidly, and when I saw her at 6:30 p.m., the first stage was completed. My assistant, who had been with her, thought she would be delivered before I arrived. It was supposed that the membranes had ruptured, as a quantity of grayish fluid, with urine, had escaped, which unfortunately was not preserved. The uterus then became quiescent, and I was unable to excite it to action by all the stimulating measures which I could bring to bear upon it. After twelve hours of labor, as the cervix was becoming edematous, I decided to terminate it artificially, the large size of the pelvis and my previous experience with the woman giving me confidence that I could readily do so. The head was then at the superior strait, with the occiput at the left sacro-iliac synchondrosis. The presenting membranes showed that the fluid previously discharged had probably not proceeded from the interior of the ovum. They were easily ruptured, and the hand introduced into the vagina discovered not only the malposition of the head, but also the presenting cord and left hand of the child. Moderate hemorrhage from a probable low attachment of the placenta began at this time and continued until the delivery was well advanced. I first attempted to push up the occiput and rotate the head into the first vertical position with the hand; this failing, I tried the same maneuver with a blade of the forceps used as a

vectis. I then tried direct traction, first with narrow and then with broad forceps. The cervix was then incised, but the head could not be brought down. Podalic version was then performed, the belly instead of the back of the child being unfortunately brought to the front. With the greatest difficulty the arms of the child were liberated from the sides of the head, the head was then rotated, the forceps applied, and a very large and hard head delivered. Placenta and membranes were expressed almost immediately afterward and the uterus promptly contracted. An intra-uterine douche was given and all lacerations in the uterus and vagina closed with silk. Hemorrhage ceased as soon as the wounds were closed. The patient at once rallied from the anesthetic, but suffered greatly from shock. Her condition quickly improved under stimulation, and in 12 hours was as good as is usually seen after labors of moderate severity. Early the next morning she went into collapse, but rallied under stimulation. Peritonitis developed a few hours later, and she died about forty hours after the termination of labor.

These severe conditions all occurred in strong, well-developed women, with perfectly formed pelves, in whom easy and natural labors might well be expected. In the further consideration of the subject I shall discuss mainly the conditions which arise with the normal type of pelvis, the narrow and contracted forms being rarely seen in American women, besides the principles of treatment will usually be very much the same for all.

The term occipito-posterior presentation of course defines itself. It implies that the great expanse of the cranial vault and occipital region must sweep around and through the hollow of the sacrum in place of the less extensive area of the face and forehead. It implies at the same time a great stretching of the posterior segment of the uterus, thinning and weakening it and rendering it unusually susceptible to rupture. It is said by most of the writers upon obstetrics that this vicious position is usually rectified spontaneously, rotation of the occiput to the front taking place when the head reaches the floor of the pelvis. SIMPSON says no interference will be required, as a rule (works of Sir JAMES Y. SIMPSON, 1871, p 23). But if the occiput rotates into the hollow of the sacrum, and the head is large, the chances of a favorable change of position by the unaided forces of nature are almost *nil*. The distended and weakened uterus is entirely unable to contract efficiently, and inertia, which may be indefinite in its duration, is the result. The unfortunate consequences of prolonged pressure upon the soft parts in connection with this obstinate uterine inertia are among the most inevitable of the disasters which are to be anticipated whatever be the mode of treatment. LITZMANN divides the position into three grades or degrees: In the first sagittal suture of the child's head extends from $\frac{1}{4}$ in. to 1 in. (1.5 to 2.5 ctm.) anterior to the transverse diameter of the pelvis; in the second the sagittal suture is to be felt closely behind the upper border of the pubic bone; in the third the

occipital bone alone advances, while the ear is to be felt at the level of, above, or below the promontory.

In 23 cases the first degree occurred 13 times, the second 9, and the third once. In the first degree if the pelvis is large and the fetal skull small, if, also, the pains are active, there will be little obstruction to delivery. VEIT's opinion, however, is that in any case one must not trust too much to spontaneous delivery. In 14 cases which he has observed, spontaneous delivery occurred only 5 times with but two living children. (One mother and 8 children were lost in the 14 cases.) It has not seemed to me that LITZMANN's classification was of very great practical utility. The causes which produce this faulty presentation are, as already stated, not clearly defined. Primiparæ with large, well-developed pelvises seem especially prone to the accident, this opinion being shared by a number of writers. Multiparæ with pendulous abdomens and necessarily misdirected uterine action are also subject to it. GOTTSCHALK narrates two such cases, in one of which a dead child was delivered, the other being born alive. In twin pregnancies misdirection of the expulsive forces might lead to the complication. A superabundance of liquor amnii, or a deficiency of the same, might lead to equally misdirected uterine action and faulty presentation. None of these surmises is of universal application, for we find natural and easy labors sometimes occurring with all of them. In deformed or contracted pelvises the misdirection of the forces is easily accounted for, but such cases are not now under discussion.

Complications.—The complications which may attend this faulty presentation are, as has been intimated, many and troublesome. The first to be noted is uterine inertia. This may continue for days. The continuous pressure upon the uterus soon produces edema of the cervix, the posterior segment of the uterus is stretched and thinned, and sloughing or rupture stares us in the face as a possibility, whether we leave the case to nature or use forcible means to deliver. Pressure, again, may produce spasm of the circular fibers at the os internum, and it will be almost impossible to draw the child through the constricted opening by either extremity. Placenta prævia may prove an annoying and dangerous element, and the woman may die of hemorrhage undelivered. The cord or one or more extremities may complicate the situation, or twins may become interlocked, and the danger of infection may be increased by the presence of a gonorrheal endometritis, or by the rupture of a pyosalpinx into the uterus. The presence of uterine or abdominal tumors, or of malignant disease in the pelvis or abdomen, may also render the difficulties of the situation almost insurmountable. Finally, the presence of serious constitutional disease in the mother or hydrocephalus or other deformity in the child may remove all hope of successful issue, however judicious the treatment. It must be remembered that these serious and almost invariably fatal cases which come sooner or later to most obstetricians of large experience, are not the cases

which are reported in the journals. It would be well if they were, that the profession at large might have the advantage of studying them.

Diagnosis.—The earlier the diagnosis of this position is made, the better for both mother and child, as a rule.

If after the completion of the first stage of labor the head remains at or above the brim, and the pains are weak or absent for an hour or more, the case is certainly one which demands accurate diagnosis. Without exact knowledge of the position of the child, how can intelligent measures be instituted for its delivery? A finger or two fingers in the vagina do not suffice in such a case. The entire hand must be introduced, carefully passed around the fetal head until an ear is discovered, and this will determine the presenting part. With this as a guide, the position of the sagittal suture and the fontanelles can readily be determined and the diagnosis completed. Of course such a diagnosis is more satisfactorily determined under anesthesia.

HEGAR called attention 20 years ago (*Berl. klin. Wochen.*, XI, 1875, p. 7) to the fact that the position could be determined by external inspection and palpation, a depression in one or the other groin of the mother indicating the position of the child's neck, from which, by palpation, the other parts could be determined. I have never seen this sign verified, but it would seem impracticable for any except women with thin and lax abdominal walls. If the diagnosis is not made until after the head has engaged or has reached the pelvic floor it will be made with great difficulty if at all. If the head is large and fills the pelvis it would be unsafe to manipulate it with the entire hand, and in many cases it would be impossible. The development of a large caput succedaneum, which must necessarily occur when a large head is long in the pelvis, would so obscure the relations of the fontanelles and sutures that they would be of no assistance in determining the position.

Management.—The difficulties in determining upon the proper method of treatment for occiput-posterior presentations are very great. Methods which are advocated as successful in practice by one authority are denounced or are found unsuccessful by another equally competent. The highest judgment and wisdom are necessary to select the proper method for the given case, for that which brings success with one may bring failure and disaster with another. The problem is manifold; it is to leave the case to nature, usually in the presence of uterine inertia, to rectify the malposition so that the natural forces can act at better mechanical advantage, or traction instruments be applied effectively, to drag the child through the birth canal by main force after substituting the podalic for the cephalic end, to attempt to drag the child through with instruments without rectifying the presentation, to enlarge the pelvic opening, to diminish the size of the fetal skull.

I fear that the situation will not be made any too clear by the recital of the following opinions of

eminent authors, which I have endeavored to arrange as systematically as possible:

According to CHARPENTIER ("Cyclop. of Obst. and Gyn.," IV, p. 114), all authorities previous to SMELLIE recommended version when the head was above the brim.

GOTTSCHALK, a recent writer (*l.c.*), advises version early in labor, by the combined outward and inward methods, if the presentation is not more than the first degree of LITZMANN.

VEIT considers turning dangerous if the labor has continued a long time and the uterus is stretched out. He lost a mother and child by the operation (*Ztsch. f. Geb. u. Gyn.*, IV, p. 229).

LITZMANN thinks turning unsafe.

HECKER favors forceps in general, to be followed by version if the former fails.

VEIT objects to forceps absolutely, except when the head is in the pelvis.

MICHAELIS (*Neue Ztsch. f. Geb.*, IV, p. 179) advises waiting if the head is partially engaged, then rectification from without and forceps. LITZMANN approves of this plan and has twice succeeded in drawing the head into the brim.

Sir JAMES SIMPSON (works of Sir J. Y. S., 1871, p. 23) permits rectification by the hand, if necessary, or rotation with the forceps, imitating nature. LEISHMAN says this is possible only when the head is free above the brim or quite at the floor of the pelvis. CHARPENTIER says rotation with the forceps should only be practiced when the head is at the pelvic floor. BARNES advises to extract with or without rotation, according as the expelling forces guide the forceps.

DENMAN, HAMILTON, RAMSBOTHAM, and DAVIS advise forceps extraction, without attempting to remedy the position (*Brit. and For. Med.-Chir. Rev.*, XLVI, p. 13). VEIT recommends perforation at the brim when it seems necessary to save the mother's life, and LITZMANN recommends the same after attempts at rectification have failed.

Finally MICHAELIS, in an interesting series of papers, written 60 years ago, shows how nature unaided may solve these difficult problems in mechanics. In one case, in which the foot presented, with ventral surface anterior, one part after the other was extruded successively, the trunk being rotated and extended and one arm and then the other liberated, until finally the head was reached. The occiput was posterior, but the uterus contracted down upon it, and it was delivered with as much ease as if the natural process were being followed in all respects. In another case, in which the occiput was posterior and too high to be grasped by the forceps, ergot was given to bring on the pains. In half an hour there was spontaneous delivery. But this excellent and conservative obstetrician confided in nature once too often, for in another case he delayed interference until the mother was exhausted. He dared not turn, and so rectified the position of the head with his hand, then applying forceps and extracting a dead child.

With my present light upon the subject, I do not feel that there is any one course of treatment which it is wise to follow in all cases. With the head above the brim it is quite possible in some cases to rectify the position with the hand, the vectis, or the fillet; this, of course, in wide pelves. Having done this, it is quite feasible to apply long forceps, draw the head into the brim, and either leave the case to nature or extract gradually. This plan is sustained by such high authority as SIMPSON and LITZMANN. Case I is an illustration in point. Still, if the case is seen early in labor, I am inclined to think that version would be the easier operation, but it is not without danger. It is generally agreed that it is well to leave the membranes unruptured until operation, of whatever character, is undertaken. If the head is in the pelvis, several methods are available—either traction with the forceps, perforation if the child is dead or the head very large, or symphysiotomy. The latter is not always desirable or possible in private practice, but it may be imperative in the interest of the mother. Leaving the case to nature and allowing the woman to remain undelivered three or four days, with all the dangers of rupture of the uterus, sloughing, and sepsis, do not seem to me justifiable.

New York; 138 Madison avenue.

WHAT TO SEND TO THE MICROSCOPIST, AND HOW TO PREPARE IT*

By T. E. OERTEL, M.D.

Pathologist to the West-Side German Dispensary

EVERY pathologist has often had specimens sent to him which, through the ignorance or carelessness of the collector, have been rendered totally worthless for microscopic examination by reason of their improper preparation or the lack of any fixing or preserving agent having been used.

The general practitioner has, as a rule, a dim enough conception of microscopical technique, and considers it quite sufficient if he wrap a piece of tumor in a bit of newspaper and send it by mail several days' journey to the laboratory, where its structure is to be investigated. He is highly delighted with his forethought, if he plumps an eye into 95 per cent. alcohol and transmits it to the pathologist, with an inward glow of satisfaction at having done just the right thing. In fact, there is no technical atrocity at which he will pause. Nor is it generally his fault that he perpetrates these sins of commission and omission against his laboratory brother.

The vast importance of microscopical research in medicine has been recognized a comparatively short time. The bacillus tuberculosis and the gonococcus have been born to science within the last decade almost.

The prolific medical schools of these United States vomit forth thousands of young physicians

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annually; and it is a lamentable fact that in only a comparatively small number of these institutions is laboratory work accorded the attention it deserves. Many of the older practitioners have never received any such instruction, and have not taken the trouble or have been unable, through force of circumstances, to acquire the requisite knowledge.

The stupendous forward strides of modern medicine and surgery are directly due to the indefatigable efforts of such microscopists as VIRCHOW, KOCH, LÖFFLER, and a host of others, who have fought ever upward toward the light, undaunted by difficulties, surmounting all obstacles, overcoming all opposition, considering no task too arduous if its accomplishment promised to furnish the profession another weapon with which to fight against disease. Pathology and bacteriology are rapidly being accepted by the profession as distinct and legitimate specialties, and the time is not far distant when the general practitioner will to a far greater extent avail himself of the broader knowledge of those who make these branches a life-study.

It is with a view of facilitating the work of both the physician and the microscopist, and the furthering of accurate and scientific research, that the following hints are given. Only such reagents as are easily obtainable will be mentioned, and it is endeavored to simplify the directions as much as possible, so that he who runs may read.

It goes without saying that tissues intended for microscopic examination should be obtained in as near the recent state as possible. If they are secured through operative means they should be at once put into the fixing agent selected.

Autopsies should be made as soon after death as the circumstances will allow, in order that the organs may be procured before post-mortem changes have proceeded so far as to produce structural disintegration of the cellular elements.

The tissues selected should be divided by cuts, made with a razor or other very sharp knife, into cubes not over one inch in diameter, in order that the preservative may penetrate their substance more readily. The cuts should not extend entirely through the mass, but to such a depth that a portion of the tissue will remain intact and preserve the continuity of the part. It is best for the novice not to endeavor to cleanse the tissues by washing, as this is unnecessary, and much damage may be done friable structures by rough manipulation. In all cases notes of the autopsy should be taken, and these should accompany the specimens.

Preparation of Parts.—Some organs require special preparation, and such will receive brief mention.

BRAIN.—This organ must be handled with the greatest delicacy, and upon its removal from the cranium be placed immediately into a suitable vessel containing Müller's fluid or a 5-per-cent. solution of formalin. The preservative used should be of sufficient amount to cover the brain completely. If the

above reagents are not obtainable, some other of those mentioned toward the conclusion of this paper may be substituted.

Chromic acid in its weaker solutions is perhaps the best among these. Alcohol, if the specimen is intended for microscopic examination, should be avoided. Water and glycerin, equal parts, will answer, if nothing better is within reach.

No incisions into the brain substance should be made, and the sooner it reaches the hands of the pathologist the better.

SPINAL CORD.—The cord, together with its membranes, should be carefully taken from the canal, the lateral nerves having been previously severed as far from their origin as possible. Do not use force in this procedure.

The cord may then be cut into pieces six inches in length and placed in one of the fixing agents advocated for the brain, formalin being preferred.

EYE.—The eye should be placed entire in 2-per-cent. formalin, if this be obtainable, or into Müller's fluid. No other agents are permissible.

It is absolutely essential that the eye should be fresh, as post-mortem changes, which render it valueless, occur within a very short time after death.

In view of the above, eyes obtained by operation are most satisfactory.

STOMACH.—The stomach should be emptied of its contents through an incision made along the greater curvature. Do not wash, but put it entire into formalin, Müller's fluid, or alcohol.

INTESTINES.—Intestines should likewise be emptied of any fecal matter present. They may be cut into pieces six inches in length, and the reagents advocated for the stomach used.

TUMORS.—Tumors should be incised, as described under general tissues, and placed in one of the various preservative agents, preferably Müller's fluid, formalin, or alcohol.

The pathologist should be furnished a concise history of the case, setting forth especially the situation of the growth and whether it be primary or secondary.

CURETTINGS.—Curettings from the uterus and other localities should receive the same treatment as general tissues; but in suspected malignant involvement of the part, it is much more satisfactory if a piece about one-quarter of an inch in diameter be cut from the unhealthy portion.

If malignancy exists it is of the utmost importance that the fact be known at once, and the slight operation necessitated by the above procedure is always justifiable if the symptoms or history makes the case a doubtful one. The total amount of curettings made should be sent.

EMBRYOS of vertebrates should be immersed in Müller's fluid, formalin, or alcohol, the reagents being given preference in the order named.

PARASITES (Intestinal).—Intestinal parasites may be preserved in alcohol or formalin. Glycerin and water, equal parts, may also be used with advan-

tage, as this preparation acts as a clearing agent as well as a preservative.

The proglottides of the cestoids should not be broken one from the other if it can be avoided, as their continuity is an aid in diagnosis.

CRUSTS and SCALES scraped from the affected areas in cutaneous disorders should be inclosed in a small vial and sent to the laboratory in a dry state, no chemical agent being necessary for their preservation.

HAIRS.—The microscopical examination of hairs may often determine the diagnosis in various forms of cutaneous diseases. Hairs should always be preserved dry. If the result of an examination of certain hairs is to be used as testimony before a court of law, the hairs in question should, in the presence of witnesses, be placed in a clean glass vial, which should then be corked and sealed. There should also be made upon the vial some distinguishing mark, or some marked object should be placed in it

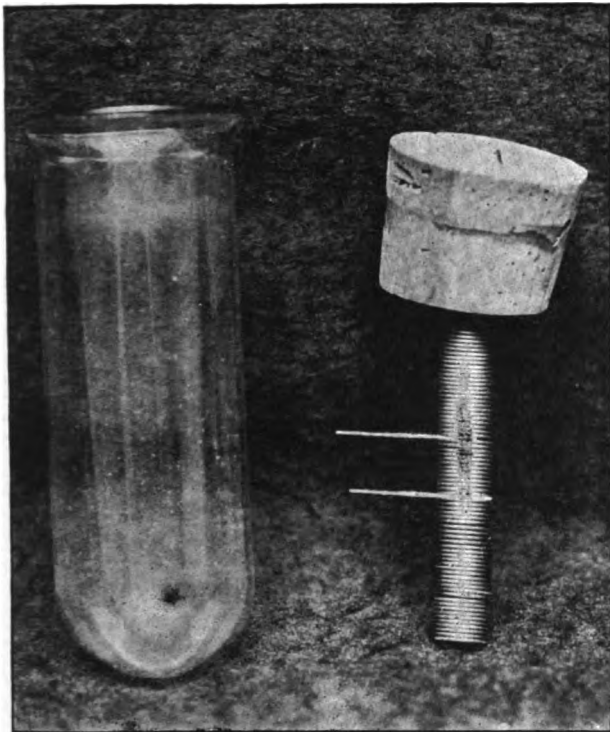


FIG. 1A

FIG. 1B

before sealing, so that its identity may be preserved beyond question.

SCRAPINGS FROM UNDER NAILS.—Much information may sometimes be gained by minute examination of the accumulation from under the nails of murdered persons or from one suspected of murder. Shreds of clothing, blood, hairs, or epidermis found under the nails in such cases may lead to the detection and punishment of the criminal.

The scrapings should be collected with great care and sealed in a vial with the same precautions as mentioned under Hairs.

BLOOD.—The importance of the microscopical examination of blood is daily increasing, as is our knowledge of its physiological functions and its various cellular elements.

Unfortunately for the determination of the percentage of hemoglobin or the proportion of the white or red corpuscles, fresh blood must be used, and the patient must be sent to the laboratory or the pathologist must visit the bedside.

For the detection of the plasmodium malarie, cover-glass preparations should be made.

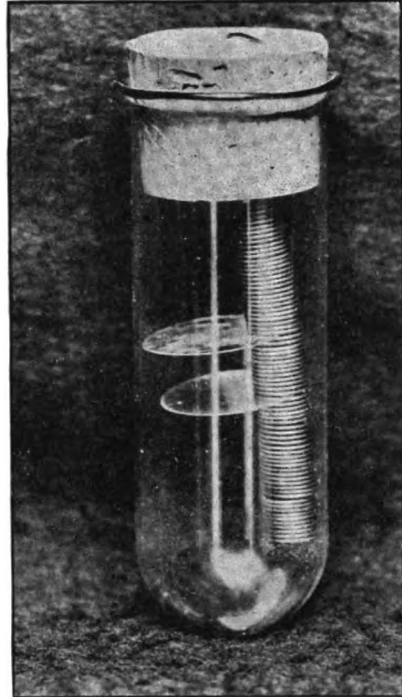


FIG. 2

The blood for this purpose should be procured at the height of the chill, if possible, and may be taken from the lobe of the ear or tip of a finger, the part selected having previously been thoroughly cleansed with soap and water and then rinsed off with alcohol and ether.

Two cover-glasses having been cleaned by dipping them into alcohol and wiping them with a soft, dry cloth or piece of cut velvet, place a small drop of fresh blood on one and cover this quickly with the other. The blood will spread rapidly and evenly between the two surfaces. The covers are then separated by sliding one from the other. A thin smear of blood is thus obtained; and after drying thoroughly in the air, at the temperature of the room, these preparations will keep indefinitely if they are protected from dust and moisture.

A simple and efficient piece of apparatus for carrying clean cover-glasses or those upon which smears have been made is that devised by Dr. F. D. SKEEL.

It consists of a short, wide test-tube (Fig. 1b) and a piece of tightly-coiled copper wire, the upper end of which is straightened and passed through a cork of proper size to fit the tube, and clinched (Fig. 1a). The cover-glasses when inserted between the coils of the wire are firmly held in place, and the apparatus may be carried in the pocket, and clean covers thus be always available for emergencies.

In Fig. 2 the bottle is shown ready for the pocket. Cuts are nearly full size.

It is always advisable to send the patient to the laboratory when it is possible to do so.

The blood is often of vast importance from a medico-legal point, and the microscopist may, under certain conditions, be able to determine whether or not a given specimen is human blood, or whether or not stains upon articles of clothing or implements are blood stains.

In these cases the articles upon which the suspected blood-stains appear should be marked, in order to establish their identity, and referred to the microscopist at once, together with all obtainable data as to their probable origin.

PUS.—No case of urethritis should be treated without repeated microscopical examination.

Cover-glass preparations of the pus may be made in the manner described for blood-smears. If cover-glasses are not at hand, a thin layer of the pus may be spread upon a glass slide, or, if this be wanting, a narrow strip of clean window-glass may be used. If no glass is available, a few drops of pus, if so much can be obtained, should be collected in a small bottle, and this should be tightly corked to prevent evaporation.

As a last resort the pus may be collected upon a piece of linen or cotton cloth or upon absorbent cotton, or that part of the dressings upon which it has flowed may be sent to the laboratory.

Pus from abscesses supposed to be of tubercular origin may be examined for the bacillus of that malady, and in such instances preparations should be made as above.

SEMINAL FLUID.—It is sometimes desirable to examine the seminal fluid to determine the presence or absence of spermatozoa. The secretion should be as fresh as possible and no preservative should be used.

In order to establish charges of outrage it is always well to submit to microscopical examination any stains found upon the clothing of the victim. Clothes should be marked as in other medico-legal cases. It is also advisable to wipe out the vagina with a piece of gauze, and transmit this with the other specimens.

VOMIT.—Matter ejected from the stomach should be collected in a glass or porcelain vessel and sent to the laboratory with all possible dispatch. If there be unavoidable delay in transmission, the vomit may have added to it an equal quantity of a 2-per-cent. solution of formalin. This will act as a preservative and fix any blood-cells that may be present.

FECES.—Feces should always be sent in a fresh condition without the addition of chemical agents. This is particularly necessary if a bacteriological investigation is to be made.

EXFOLIATED MEMBRANES.—Supposed exfoliations of mucous membranes from the intestine, uterus, etc., should be preserved in some one of the fixing agents hereafter mentioned.

SPUTUM.—In all cases of suspected pulmonary tuberculosis the aid of the microscope should be invoked to establish the diagnosis, and this obtains

particularly in cases where the disease is in its incipency, as it is in this stage that we can with most reason hope for beneficial results from a proper course of treatment. The physician who omits such an early examination of the sputum commits a crime toward his patient and the community at large.

Morning sputum should always be chosen, and the patient should, for the sake of cleanliness and the convenience of the physician, be instructed to expectorate directly into a wide-mouthed bottle.

Sputum will keep for some time, and even should it become putrid the bacillus tuberculosis will respond to the usual stains. It is therefore unnecessary to add any preservative agent.

URINE.—Urine must not be treated with any chemical agent, but should be sent to the laboratory as soon as it has been collected, in order that an examination may be made before ammoniacal decomposition sets in.

The most accurate results are obtained by securing all the urine passed by the patient during 24 hours, thoroughly mixing the same and transmitting for examination not less than 4 oz. of the resulting compound.

The urine should be measured and the pathologist always informed of the total amount passed in the above specified time and of the reaction of the fresh specimen. If this procedure is impracticable, a specimen of the morning urine should be selected.

If the analysis is to be quantitative for sugar, albumin, urea, and the like, it should be so stated, as otherwise only a qualitative analysis would be made.

The urine may be examined for tubercle bacilli in suspected tuberculosis of any portion of the genito-urinary tract.

If it is not possible to make proper cover-glass preparations from urethritis cases an examination of the urine may reveal the gonococcus of Neisser.

Reagents.—The reagents here given are those than are most often used, and all of them are accessible to even the country practitioner.

Others might be mentioned, but the difficulty of obtaining their components puts them beyond the scope of this paper.

ALCOHOL.—Alcohol, as bought in the shops, may be used as a transmitting agent for all tissues except those specially mentioned. It is not as good as some other of the reagents at our command, as it has a tendency to shrink and distort the tissues.

It is advisable not to use it unless circumstances are such that neither of the two following fluids can be procured.

Commercial alcohol is supposed to be 95 per cent., but generally it is much below this standard, and it is safe to use it full strength. The quantity used should several times exceed the bulk of the specimen.

MÜLLER'S FLUID.—This is the best general fixing and hardening agent universally within reach. It consists of:

Bichromate of Potassium	1	part
Sulphate of Sodium	2.5	parts
Water	100	parts

The materials for this fluid can be bought at any drugstore and compounded in a few moments. The cost is trifling and the results obtained excellent. It may be used for the most delicate tissues with perfect safety.

FORMALIN.—Formalin and other of the various 40-per-cent. aqueous solutions of formaldehyd have recently sprung into prominence as fixing and preserving agents, and much has been said about them, *pro* and *con*. In my hands they have given uniformly good results and in some respects seem superior to Müller's fluid.

Tissues are hardened quickly and with a minimum of shrinkage by them, and when a diagnosis is desired within a limited length of time they are invaluable. For hardening the eye and nervous tissues they are exceptionally good.

These preparations should be used in a strength of 2 per cent. to 5 per cent., water being used as a diluent.

CHROMIC ACID.—Chromic acid still has its ardent advocates, and, if no other reagents are at hand, may be used in an aqueous solution of from 0.5-per-cent. to 2-per-cent strength. The weaker solutions give the better results. Chromic acid is a very good fixative for nerve tissues, but is now much less used than it formally was.

BICHLORIDE.—A saturated aqueous solution of bichloride of mercury is frequently used as a fixative, and as this salt is easily obtainable, it may be used when other reagents are wanting. Heat will facilitate dissolving the salt in water, as at ordinary temperatures it dissolves very slowly.

NORMAL SALT-SOLUTION.—Tissues will remain unchanged for some time in this solution, and the facility with which its constituents are procured renders it valuable as a transmitting fluid.

It consists of a 0.6-per-cent. aqueous solution of common table salt. A handy formula is:

Salt 6 gme.
Water 1000 c.c.

or:

Salt 1½ dr.
Water 2 pints

It must be used only when the specimens are to be sent to the laboratory at once, as its preservative properties are limited by hours rather than days.

If a quick diagnosis is desired, it is best to choose one of the non-alcoholic solutions as a transmitting medium, as it will then not be necessary for the pathologist to wash out alcohol in order that the specimen may be frozen.

New York; 210 West Forty-fourth street.

THERAPEUTIC ITEMS

Olive Oil in the Treatment of Bruises.—G. Auger (*Sem méd.*, 1895, XV, p. cxcviii)

Instead of having recourse to applications of arnica tincture, camphor spirit, and to strong compression of the swelling, in the treatment of light bruises, Dr. A. prefers the use of olive oil, both in

children and in adults. He applies the oil freely to the contused parts, and rubs the latter lightly with a rag, absorbent cotton, or with the fingers, and then covers the bruise with a compress saturated with olive oil.

The author claims that this treatment gives immediate relief to the patient, and that the formation of a bloody protuberance is often prevented; while excoriations and superficial wounds, which may be present, heal very rapidly.

Paroxysmal Headaches Treated by Ergot.—L.

CAPPELLARI (*Sem. méd.*, 1895, XV, p. ccxxii)

In three cases of periodic headaches, the author had occasion to test the efficacy of ergot, as recommended in this morbid condition by Dr. Thomson.

The three subjects were of a more or less nervous temperament, and had suffered for a considerable time from frequent and violent attacks of headache. The patients gave no history of malaria. Quinine, as well as most of the analgesics and antinervines known, had been tried in vain, when Dr. C. resolved to administer ergot. The beneficial effect of the latter soon became manifest. The patients were completely cured of cephalalgia, after having taken daily 4 gme. (1 fl. dr.) of fluid extract of ergot mixed with 12 gme. (3 fl. dr.) of elixir of cinchona, for three consecutive days.

The medicament did not occasion nausea or vomiting, as had been observed by Dr. Thomson in his patients. This Dr. C. ascribes to the fact that he employed three times as much elixir cinchona as fluid extract ergot, while Dr. T. used equal parts of elixir and fluid extract.

Hyperidrosis Treatment.—M. L. HEUSNER (*Sem. méd.*, 1895, XV, p. ccxxii)

In the treatment of various forms of hyperidrosis the author has successfully employed the following mixture:

Balsam Peru 1 gme.
Formic Acid 5 gme.
Chloral Hydrate 5 gme.
Alcohol 100 gme.

In cases of local excessive sweating (plantary bromidrosis, etc.) he applies the above mixture by means of a cotton tampon to the seat of the trouble.

To combat generalized hyperidrosis, the author uses this liquid in the form of a spray to the whole body.

In cases of localized hyperidrosis especially refractory to the treatment, he recommends to double the quantities of balsam of peru, formic acid, and chloral hydrate in the above formula, or to add to the latter 1 gme. of trichloracetic acid.

Blood Poisoning.—Dr. K. N. FENWICK, professor of obstetrics and gynecology in the medical branch of Queen University at Kingston, Ont., and one of the leading physicians in Canada, died of blood poisoning, contracted by cutting his finger while performing an operation for septic peritonitis.

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WHATEVER advances the cause of higher medical education is source of congratulation to the medical profession and to the community. The steps taken by a number of the leading educational institutions in this country during the past decade have already borne fruit, in that it is unquestionable that the average student on graduation is to-day better fitted for the active pursuit of a career which aims at the betterment of mankind than was the case within the memory of the majority of our readers. The extension of the obligatory course of study to one of four terms of seven to nine months each has become the established fact in some of the leading schools of medicine. The facilities offered for post-graduate clinical work in many of the chief medical centers has rendered it unnecessary for the student to seek practical training in what constituted, ten years ago, the Meccas of the Old World. All this means, not alone added glory to the medicine of the New World, but the effects, as regards the well-being of the community at large, are strikingly shown in reduced mortality-rates from disease, in freedom from widespread epidemics, and, above all, in the raising of the medical man in this country to a plane as yet unattained in Europe. The age of the tyro-graduate in medicine, licensed to cure, although ignorant of

method, is fast disappearing; and as we note other advances toward the aim scientific medicine is striving to attain, we feel that possibly in our lifetime, even though quacks may still abound, the title of Physician will carry the certitude of sterling ability.

The oldest educational institution in this country has recently taken a step which will unquestionably tend to further elevate the standard of the medical graduate. This is not the first time that the medical department of Harvard University has had the courage of its convictions and set the pace for its many competitors. Only a few years ago a systematic four-year course, of thirty-six weeks, was instituted, at a time, too, when the medical school could ill afford to stand the expected pecuniary loss in tuition fees; and yet the reward of true merit was hers, for the students seeking instruction have increased in number instead of diminishing. It is with pleasure that we now note that the faculty have voted to require, on and after June, 1901, a degree in arts, literature, science, or medicine, emanating from a recognized college, from all candidates for admission. This very radical advance step will certainly receive the indorsement of the profession, and it is eminently fitting that it should be taken by that University which has ever stood for progress along the lines of science.

Other phases of this question, such as the possible hardship inflicted on those who are pecuniarily unable to secure one or another of the degrees which will be required for admission to the Harvard Medical School, we will refer to in future issues of the BULLETIN.

INDIVIDUAL PROPHYLAXIS.—In its further endeavors to limit the spread of contagious diseases among children attending our public schools, the New York Board of Health has acted upon some very sound and practical principles of prophylaxis advanced by Dr. H. M. BIGGS, of the Health Department.

These suggestions are to the effect that the use of slates, slate-pencils, and sponges be discontinued in the public school, that each scholar be supplied at the school with pen and pencil and also with a box bearing the child's name, in which the writing utensils are to be placed after use. All school property which has been left in the school-building by a child who has become the victim of contagious disease is to be disinfected where possible, otherwise destroyed, and all such school property which is found in the apartments occupied by families in which there exists smallpox, typhoid fever, diphthe-

ria, scarlatina, or measles is to be removed by the Health Department for the purposes of disinfection or destruction. Books which the scholars take from school to their homes are to be covered at least once a month with brown manilla paper.

Hydrants which had been utilized for supplying drinking-water ought to be dispensed with, and suitable covered water-containers substituted, one for each schoolroom, and the water renewed before school hours. Each scholar is to be supplied with a numbered drinking-cup, which is not to be kept by the child, but remain in the classroom. Every child must be cautioned not to use another's cup; every case of illness as it arises, to be promptly reported to the Health Board. Children dwelling in houses where infection exists are to be kept from school. Under no circumstances are teachers to send scholars to the homes of others.

With our more thorough comprehension of the origin of disease, from the satisfactory and gratifying results that have been clinically observed from prompt and diligent attention to the nasal and pharyngeal toilet at the onset of some of the contagious diseases, many fatal issues have been averted. Children will mingle promiscuously, and naturally be a source of uneasiness and anxiety to parents; but with the establishment of rules and regulations, and their enforcement, not complex in nature, but of a simple, applicable character of the type expressed in the Health Board's rules directed toward personal cleanliness, we are certain to reap benefit to the extent that decrease of contagious disease will become manifest.

GRAPHIC DESCRIPTION OF THE EFFECT OF DIURETICS.—It seems incredible that in the nineteenth century any physician, graduated from no matter what school of medicine, should describe a case under his care in such words as we will submit to the reader. The following sentences are taken from a medical journal published in Indiana and entered at the postoffice as second-class matter(?).

The relator states that a Mr. B. had been "treated for several months by an allopathic doctor, the patient continuing to get worse all the time, as usual under that treatment." A consultation was had, and the verdict arrived at was that the patient had "rotten kidneys"; the relator was called in, as he expresses it, "the patient then being considered a proper case for me." The symptoms are described thus:

"His limbs so swollen from the bloat that his wife had to rip the legs of his pantaloons from top to bottom and tie them with strings; his pants

would not meet around his waist by nearly twelve inches."

Diuretics were given, with the result described so fluently by the writer thus:

"The next morning, just as I was getting up, his colored boy came riding up on a good gallop and requested me to see his master as soon as I could, as the mistress thought he was dying. I ordered my horse hitched up while I swallowed a few mouthfuls of breakfast, and then hastened to my patient, whom I found lying on the bed gasping for his breath. I felt his pulse and found that it did not give evidence of death, and I then said to him that his colored boy reported that he was dying; he answered me that he was doing something, he did not know what it was. As I discovered his bloat was all gone, and his skin was hanging over his frame like, as the old saying is, a shirt on a bean-pole, I asked what had become of his dropsy. His wife, who stood by, answered the question by saying that if I had been there through the night I would not have asked it; she said that she had never passed such a night in her life, for every five or ten minutes or thereabout he was up and would pass nearly a vesselful of water each time; she remarked further that he had passed a washtubful of water during the night, and that if I did not believe it, for me to step into the woodshed and see for myself, as she had saved it for me to see. I went into the shed and, true enough, there was a small washtub full nearly to the brim. I said to the sick man, 'Well, Mr. B., that was doing very well for one night, with rotten kidneys. I did not expect nor intend any such rapid result, but, however, as you have gotten rid of the surplus water, I think you are just beginning to live instead of dying, as everything else seemed to be all right except the extreme weakness from the rapid removal of the water and the fatigue consequent upon the effort you were compelled to make in getting up so frequently through the night.'"

This report is signed by a person having the title M.D., and residing now in one of the cities which will go to make up the Greater New York. We were inclined at first on seeing this to think that it had been written in fun, but on glancing at other articles in this monthly journal we faced to other conclusions. Certainly the time has come when preliminary examinations and a higher standard must be adopted for all medical schools, no matter the "pathy" or where the State.

THE attention of our readers is called to our report of the recent interesting discussion on "The Milk Supply of New York City," which was had before the New York Academy of Medicine, Section on Public Health.

The BULLETIN has secured all the papers that were read at this meeting. They will be found in full under "Original Communications." Milk adulteration, its detection and prevention, and the methods pursued for securing pure milk are enlarged upon, and many valuable hints are extended for milk analyses and tests and for improvements in the regulation of the milk supply.

GENERAL MEDICINE

In charge of WILLIAM CHARLES GUTH, M.D.

Instructor in Pathology, General Medicine, and Intubation at New York Post-GRADUATE MEDICAL SCHOOL AND HOSPITAL

and

HENRY T. BROOKS, M.D.

Instructor in Histology and Pathology at New York Post-GRADUATE MEDICAL SCHOOL AND HOSPITAL

Functional Albuminuria.—CHAS. E. SIMON (*N. Y. Med. Jour.*, 1895, LXII, p. 330)

Albumin may be present in the urine without any lesion in the renal tissues. Albuminuria in such cases is a manifestation of a purely functional anomaly on the part of the body economy. Although attention was called to this as early as 1827, it was received with a certain amount of reserve, because the accuracy and delicacy of the methods employed to detect albumin left much to be desired. The accuracy and great delicacy of modern investigation now dispel the doubt, and there is no question but that albuminuria can occur without organic changes in any of the body tissues. Can we, however, in the absolute sense, speak of a physiological albuminuria? and are the facts brought forward to support this view admissible in all respects? Posner, in an examination of seventy cases, all in perfect health, claims to have demonstrated albumin in most of them. His claims are indorsed by Leube, Duden, Senator, etc. Nealfatti doubts the correctness of this view, asserting that it was mucin, and not serum albumin. The mucin is referred to the mucous membrane of the urinary passages. This supposed presence of serum albumin in normal urine is regarded as the cornerstone of those holding the theory of physiological albuminuria. Senator believes that albumin is present in every urine, but in varying amounts, so that if decreasing beyond a certain point, its presence cannot be detected by any reagent now known to us. It may, however, increase and become apparent under conditions wholly physiological, such as muscular exercise, process of digestion, cold baths, severe mental strain, etc. He claims the presence of albumin in normal urine, because it is contained in the leucocytes, pavement epithelial cells, and cellular detritus.

In the analysis of urine passed by a large number of soldiers, Grainger Stewart found albumin in 37.5 per cent., Leube in 5 per cent., Capitan in 44 per cent., Millard in 44.9 per cent., and de Chateaubourg in 76 per cent. The subjects examined were claimed to be in perfect health. The wide differences in percentage, however, are suggestive of some error of observation. Senator explains the high percentage of de Chateaubourg by suggesting that semen was mixed with the morning urine; but the same argument might be advanced for the remaining figures.

One factor can be advanced against the physiological school, viz.: The question whether or not forced marches fall within the limits of normal exercise. Zuntz and Schumberg made investigations to determine the extreme degree to which soldiers could be burdened without detrimental effects. With loads not exceeding 22 kg. (48.5 lb.), during fine weather, marches not exceeding 25 to 28 km. (15.53 to 17.40 miles) were well borne; but on hot and sultry days there were considerable loss of water, a diminution in the vital capacity, a high pulse rate, and increased respiration. With a load of 31 kg. (68.35 lbs.), even in cool weather, distinct patho-

logical changes were noted, such as acute dilatation of the right heart, increase of temperature to 100° F., and even 103° to 104° F.; the specific gravity of the blood increased 6.5 units; the red corpuscles increased from one-fifth to four-fifths of a million per cubic millimeter, and of the white to nearly (at times) 100 per cent. Forced marches, then, can hardly be regarded as physiological exercise. As a matter of fact, the number of cases of albuminuria among more sedentary subjects is remarkably smaller than the number after forced marches. Cold baths cannot be regarded in every case as physiological *stimuli*. In many subjects cold acts in a most unpleasant and abnormal manner. As regards digestive albuminuria, it may be truly regarded as a pathological condition in a large number of cases, and referable to some functional abnormality on the part of the body economy. In the author's cases, as well as those reported by Da Costa, the patients had various manifestations of neurasthenia or hysteria. The specific gravity of the urine in these cases varied from 1023 to 1036. This is probably due to increased elimination of urea and other nitrogenous constituents.

The heat and nitric-acid tests may be sufficient in most cases for the detection of albumin. The author, however, in all cases, uses a solution of 16 grm. of trichloroacetic acid in 100 c.c. of water. By the use of this reagent one can tell whether the treatment is reducing the amount of albumin, or whether or not the albumin has disappeared. Since Reese affirmed that tube casts of hyaline character might occur in urines apparently free from albumin, when tested with the ordinary reagents, the author, by the use of trichloroacetic acid solution, has still to see the first case of *cylindruria sine albuminuria*. Tube casts are present in most, and perhaps all, cases, at times, and should be sought for by a low power. The diagnosis of digestive albuminuria can usually be made without difficulty, the prominent symptoms being referable to the nervous system; also the dyspeptic symptoms in the presence of normal digestion; the urine, too, has a high specific gravity, a normal amount of water, increased amount of urea and uric acid, often of oxalic acid, a normal or increased amount of the chlorides, the absence of indican, according to the Jaffe-Stokvis test, the presence of albumin, not exceeding 2 grm in the twenty-four hours, combined with hyaline or finely granular casts. The response to treatment is rapid. It does not appear justifiable to consider an excessive elimination of uric or oxalic acid as direct irritants to the kidneys, and so causing albuminuria. The strain upon the kidney, caused by the excessive elimination of nitrogenous constituents in general, must be enormous, and must be held responsible for this form of albuminuria. It can be referred to a general metabolic insufficiency on the part of the economy, characterized by an increased nitrogenous waste and insufficient combustion, ending in excessive formation of uric acid, at times of oxalic acid. With the knowledge of such cases, it is very doubtful if we can speak of a purely physiological form of albuminuria. The various forms of so-called physiological albuminuria should be grouped under the general heading of functional albuminuria.

The treatment of uric and oxalic acid albuminuria is, on the whole, very successful. The diet should be rigidly enforced, of a kind calculated to avoid excessive formation of uric and oxalic acids, and to throw as little work as possible upon the kidney. This can best be done by administering milk, two to three pints daily, and kefir, one to two pints. Only

white meats should be allowed, such as fish, sweet-bread, calf's brain, crabs, oysters, frogs, rabbits, and the white meat of chicken, turkeys, and birds. Red meats are strictly prohibited. Of vegetables there may be allowed spinach, oyster plant, parsnips, turnips, carrots, Brussels sprouts, white asparagus, etc.; of fruits only stewed apples, prunes, pears, and peaches. Coffee and tea are prohibited. When prostration is great, then alcohol in the form of French red wine is allowed. Stale bread, zwieback, toast and alenronat bread are permissible. Warm baths may be taken twice or three times weekly, before retiring. A Turkish bath weekly, of 10 minutes' duration. There should be 8 to 10 hours of undisturbed sleep; as the patient grows stronger, gradually increasing exercise in the open country air. Little or no medication is called for. If anemia exists, it may be treated with iron and quinine. In some cases *nux vomica* is serviceable. Of mineral waters, liberal amounts should be consumed.

Auto-intoxication.—G. B. SWEENEY (*Maryland Med. Jour.*, 1895, XXXIV, p. 41)

From time immemorial it has been known that the human organism can be poisoned by products elaborated within the economy. But so little definite knowledge has been gained that it is difficult to demonstrate beyond a doubt many phenomena which we believe to be due to auto-infection. Conclusions arrived at on this subject must be largely a matter of induction. The causes of the phenomena must be discovered and identified.

The crowning glory of nineteenth-century medicine is the disposition to study the origin of disease. As to the causes of disease, we recognize four primary pathogenic processes. The first, elementary dystrophies, arise from vital activity of cells when acted on by external causes, as physical, mechanical, or chemical. The simple process, acted on by the effects of a local character, is difficult to study. The second cause, nerve reaction, is difficult to assign to its proper place in disease production. Have we accorded to the reflexes more or less of the pathogenic influences than they actually exert? In subjects reduced by other influences, the reflexes act as econdary rôle. The two other pathogenic processes are disturbances interfering with nutrition and infection. Upon the first the question of diathesis bears directly. Diathesis is defined as a permanent disturbance of nutrition, which prepares, provokes, and maintains different diseases, as seen in their location, their evolution, and pathological processes.

Infection is the last of the four pathogenic processes. Modern medicine has demonstrated that in an individual attacked by a contagious disease there exist lower vegetable organisms capable of multiplying in healthy tissues, and capable of causing in them a disease similar to the original. To speak of a specific microbe, instead of virus, or contagion, is advancing from the vague and indefinite to the definite and rational. How is it possible to develop disease? It is not the chance meeting of man and microbe. The meeting is almost constant, and generally without results. Infectious disease is only accidental, because the infectious agent finds only exceptional circumstances favorable, not to its penetration, but to its development and multiplication. In health man is not attractive to the microbe, but when his vitality is weakened, his means of defense is diminished. The chemical constitution is modified, and invites invasion by microbes. Individuals weakened by overwork or depressing influences are

struck by disease-developing conditions from insignificant nerve excitations, which, in perfectly healthy men, would have produced nothing. Temporary disturbances of nutrition are caused by the reaction of a disturbed nervous system. Hence the way in such cases is always open to infection. The ever-present germ, which is to fulfill another part in nature, the destruction of dead matter, is also capable of destroying living matter, when it finds it in a state of preparation. Perhaps the history of angina, pneumonia, and rheumatism lies here. This teaches the physician that while seeking to destroy the microbe, he must sustain the forces of the organism.

This truth should be constantly before him. Before every illness there is a disturbance in life—for nutrition is life. Perverted nutrition induces the development of new substances, which may become toxic. Peptones are found in the organism, which do not originate in the intestinal canal, but are injurious, in that, being dialyzable, they escape by the urine, and thus cause abnormal spoliation of the organism. Infectious agents can produce toxic substances. They form soluble ferments, which produce local lesions by breaking up living cells.

Fatal Acute Poisoning by Cocaine.—O. H. GARLAND (*The Lancet*, 1895, II, p. 1104)

In October, 1895, a young woman swallowed upward of 2 dr. of a 10 per cent. solution of hydrochlorate of cocaine, the equivalent of 12 to 15 grn. of the alkaloid. Almost at once she had vertigo, followed in quick succession by nine epileptiform convulsions. She died in 40 minutes. The author saw the body eight and one-half hours later; found it well nourished, the trunk considerably warm, but the extremities cold, and rigor mortis well developed in them. The expression was placid; face, lips, and anterior surface of body pallid and waxlike. On the dependent portions cutaneous hypostasis was marked. The pupils were dilated, conjunctivæ not injected, and teeth firmly clenched. On post-mortem, next day, the external appearance was the same. The brain was anemic, but otherwise normal. Meninges deeply congested. Myocardium healthy and valves competent. The right ventricle contained a little fluid dark-colored blood; the left was empty. Ventricular walls relaxed. The lungs congested and highly crepitant. Frothy, partly blood-stained mucus was found in the bronchi. Except for hyperemia, the liver, spleen, and kidneys were normal. The gastric mucosa could not be examined. All other organs were normal.

Recorded cases of fatal cocaine-poisoning are comparatively few. One is a case of woman of 71 who died after a subcutaneous injection of $\frac{3}{4}$ grn.; another of a man who died after the injection of $1\frac{1}{4}$ grn. ZAMBIANCHI reports a death of a woman after the hypodermic administration of $3\frac{1}{2}$ grn. Death occurred in a woman who accidentally swallowed 22 grn. The first published case in England occurred in a man who died an hour after taking 20 grn. A fatal case occurred in Russia after a rectal injection of 22 grn. Recoveries have taken place after the ingestion of large doses. A man recovered after swallowing 46 grn. Serious toxic symptoms have arisen after the subcutaneous administration in different patients of $\frac{1}{4}$, $\frac{1}{2}$, and less than $\frac{1}{2}$ grn. One-hundredth of a grain in the eye of a 14-year-old patient caused serious poisoning symptoms. The case reported above tends to support MANNHEIM's estimate that the fatal dose of cocaine is about 15 grn.

NEUROLOGY AND PSYCHIATRY

In charge of PEARCE BAILEY, M.D.

Assistant in Neurology Vanderbilt Clinic; Attending Physician to the Almshouse, Workhouse, and Incurable Hospitals, Blackwell's Island.

Solanum Carolinensis in Epilepsy.—POTTS (*Therap. Gazette*, 1895, XIX, p. 798)

The author has employed this drug, popularly known as horse-nettle, and first introduced as an antiepileptic by Dr. NAPIER, of South Carolina, in 1889, in 17 cases of epilepsy, and the following are the conclusions he drew from his experience with it:

1. That the drug has a decided influence for good upon the epileptic paroxysm.
2. That this influence is probably not so great or so sure as that obtained by the use of antipyrine and the bromide salts or even of the mixed bromides.
3. That in those cases in which it is of service it relieves the paroxysms, without causing other unpleasant symptoms, such as are sometimes caused by the use of large doses of the bromides.
4. That the dose ordinarily recommended (10 to 15 drops of fluid extract) is too small, and that as much as a teaspoonful or more four times daily is often needed to secure results.

Laryngeal Vertigo.—MERKLEN (*Med. Week*, 1895, III, p. 512)

"I have recently met with a case of laryngeal vertigo in a man, 39 years of age, who was admitted into hospital for repeated falls, with loss of consciousness, which occurred two or three times a day, always following a severe paroxysm of coughing. He presented no traces of syphilis, alcoholism, or nervous disorder. Careful examination failed to reveal any indication of either hysteria or tabes.

"The attacks were ushered in by a pricking sensation in the larynx, accompanied by retrosternal oppression, and determining simultaneously spasmodic cough and a feeling of strangulation, which were soon followed by cyanosis, perspiration of the face, and lastly by a sort of cerebral undulation with dimness of vision and fall, with or without loss of consciousness. The fall ended the attack, the cough ceased immediately, and the patient at once got up without experiencing the least inconvenience. It was therefore a genuine case of laryngeal vertigo, the attacks of which, as in other cases of this kind, occurred principally after meals, but sometimes also during the night.

"The treatment called for was obviously reduction of the irritability of the larynx and of the spasmodic attacks of coughing. The excellent results obtained from the use of antipyrine in whooping-cough suggested trying this remedy in doses of 2 and then 3 gme. daily. On the second day, the attacks of vertigo ceased and the paroxysms of coughing became less severe. The irritability of the larynx is, however, still so great that slight pressure on the region determines a pertussis-like cough, which is almost instantaneously followed by cyanosis of the face.

"To explain paroxysms of laryngeal vertigo, two theories have been propounded. According to some investigators, it is principally due to a disturbance of the encephalic circulation, whereas others attribute it to reflex disturbances, the cause of which is hyperexcitability of the mucous membrane of the upper air-passages, the stimulation being transmitted to the medullary centers, and

determining sometimes simple spasmodic phenomena, at other times genuine syncope, to which the fall is due.

"As a matter of fact, both circulatory disturbances and hyperexcitability of the laryngeal mucosa are concerned in the production of the phenomena observed in such cases.

"The prognosis of laryngeal vertigo is always favorable; but the attacks are sometimes refractory to treatment and apt to recur. Potassium bromide, opium, and belladonna have been employed with success, but, in some cases, the attacks have only yielded to local treatment, consisting in shortening of the uvula and extirpation of polypi of the nose or larynx. In the case under discussion, excellent results were rapidly obtained from the administration of antipyrine."

Nodding Spasm.—DICKSON (*Univ. Med. Mag.*, 1895, VIII, p. 211; *Lancet*, October 5, 1895)

The author contributes to the literature of this subject, already made quite large by HADDEN, CAILLE, PETERSON and others, a new case.

He details the history of one case and refers to 26 others from the literature. The patient was aged one year; no previous history was obtainable. On examination the child was found to be pale but well nourished; only slight appearance of rickets. There were two upper and two lower incisor teeth. The head was noticed to be held constantly inclined to the right side when the child was sitting up. In addition, it shook from side to side in a way such as expresses dissent. The greatest excursion of the lateral movements was to the left, and there was a slight downward inclination, also to the left. The movements were not constant, but were induced or increased by excitement of any kind, or by engaging the child's attention. Restraint of the movements caused marked discomfort. They entirely ceased during sleep and when the child was laid on her back. A day or two after admission to the hospital, horizontal nystagmus of the left eye was noticed. It also was only occasional, and was induced or increased by attempts at fixation, and markedly so by restraining the head movements. There was no impairment of vision or of ocular movement, and the fundus oculi was healthy. The right pupil, however, was somewhat larger than the left. When looking at objects, the child threw back her head, and, still keeping it inclined to one side, of necessity squinted at the object looked at instead of directing her gaze straight toward it. Later, nystagmus of the left eye developed. Subsequently—with the eruption of teeth—the symptoms improved, and four months after first observation the child was apparently well. There was no treatment adopted except the administration of cod-liver oil and attention to diet. Etiologically, rickets, falls, reflex causes (as eczema capitis, but especially dentition), are of importance. Prognosis is always good, recovery ensuing before the child becomes two years of age.

Polydactylism Experimentally Produced.—Dr. GIARD (*Soc. de Biologie*) has experimentally produced extra toes on a salamander by placing it in a vessel half filled with water. In its attempts to keep the head above water the toes are worn away. If aquatic plants are placed in the globe upon which the feet can rest, so that effort is no longer required and sufficient food is given, the toes regenerate with great rapidity and degree. One case is related where there were previously but four toes on the front feet, in which six developed and one of the hind toes became double.

MATERIA MEDICA

In charge of WILLIAM FANKHAUSER, M.D.

Aminol, an Antiseptic.—L. VAN ITALIE (*Pharm. Post*, XXVIII, p. 536)

Aminol is a preparation claimed to be the aqueous solution of a gas possessing antiseptic and deodorizing properties, and is lauded as an excellent remedy against profuse diarrhea, tonsillitis, stomatitis, etc. L. van Italie describes it as a colorless, slightly turbid liquid, possessing the odor of trimethylamine, and exhibiting a strongly alkaline reaction to testpaper; specific gravity at 17.5° C. (62° F.), 1.01. Chemical analysis showed that each liter contained calcium oxide 1.52 gme., sodium chloride 3.516 gme., and trimethylamine 0.289 gme. It is stated that bacteriological experiments proved aminol not to be a very reliable antiseptic.

Calomel and Corrosive Sublimate in Cirrhosis of the Liver.—Edelheit (*Münch med. Wochens.*, 1895, XLII, p. 1095)

The author has had success with the combined use of calomel and corrosive sublimate in the treatment of cirrhosis of the liver. To patients whom he saw early in the disease, he gave the following powders:

Calomel 0.1 to 0.2 gme.
Corrosive Sublimate 0.001 gme.
Milk-sugar 0.2 gme.
One such powder every 12 hours, for 7 days.

The diet should consist principally of soups, milk, and lemonade; and Hunyadi water may be given if constipation is present. Meat, legumens, beer, etc., are not allowed.

If the disease is so far advanced that the patient is no longer able to be up, and ascites is present, the above treatment should at first be continued no longer than three days; then but one powder daily

or one every other day should be given. If, after seven to ten days, all symptoms of dropsy have disappeared, the treatment may be suspended.

In far advanced cases the author administers the smaller doses of calomel for three or four days, and then gives but one dose every other day.

In this manner, he maintains, the *status quo* is regulated, and puncture of the abdominal wall rendered unnecessary.

As after-treatment, Dr. E. prescribes Carlsbad water or salt, besides a good diet, moderate exercise, and plenty of fresh air.

Treatment of Functional Impotence.—J. LINDSAY (*Cincin. Med. Jour.*, 1895, X, p. 753)

In functional impotence we have usually to deal with a condition in which the sexual apparatus is being constantly excited and irritated, and consequently the reflex center in the spinal cord is never at rest. Therefore, in treating such cases, the author argues, one should not begin by putting the patient on aphrodisiacs (as phosphorus or damiana), but adopt a line of treatment that will soothe and tranquilize the patient, and stay his more or less morbid desire to accomplish sexual intercourse. For this purpose he prescribes the following mixture:

Tincture Hyoscyamus 20 min.
Potassium Bromide 20 gr.
Camphor-water To make ½ fl. oz.
To be taken in water four times a day.

After following this plan for two weeks, or longer if necessary, and its purpose having been attained, it is then, in the case of a married man, permissible to begin tonic aphrodisiac treatment.

The following combination is considered of great value by the author:

Strychnine Sulphate ½ grn.
Dil. Phosphoric Acid 1 fl. dr.
Distilled Water 1 fl. dr.
For one dose, to be taken in water four times a day.

Maximum Doses of Some of the Newer Remedies.—Compiled by A. SCHREIBER, of Neukirch (*Apoth. Ztg.*)

	Dose (Gme.)			Dose (Gme.)			Dose (Gme.)	
	Single	Daily		Single	Daily		Single	Daily
Acetal	8.0	16.0	Euphorin	0.5	2.0	Neurodin	1.0	4.0
Acid, creosotinic	0.5	5.0	Exalgin	0.02	0.1	Nickel bromide	0.5	1.5
Cubebic	1.0	2.0	Extr. adonidis vern., fl.	0.5	2.0	Nicotine	0.001	0.005
Diiodosalicylic	1.0	3.0	Boldo, fl.	0.5	2.0	Orexine	0.4	1.5
Dithiosalicylic	1.0	1.5	Cacti grandiflor, fl.	0.75	3.0	Hydrochlor	0.5	2.0
Hydrobromic	0.5	2.0	Coto, fl.	0.5	2.0	Paracotoine	0.1	0.3
Adonidin	0.005	0.03	Gelsemium, fl.	0.2	0.6	Paraform	3.0	9.0
Agathin	0.5	1.0	Ferratin	0.5	2.0	Pental	1.0	4.0
Alphol	0.5	2.0	Formanilid	0.25	1.0	Phenocoll hydrochlor	0.5	2.0
Analgen	1.0	4.0	Gaduol	0.2	0.8	Piperazin	1.0	4.0
Anemonin	0.03	0.1	Guaiaacol salol	1.0	5.0	Podophyllotoxin	0.02	0.06
Antinervin	0.5	2.0	Guaiaacol carbonate	1.0	6.0	Pyridine	0.05	0.3
Antisepsin	0.05	0.2	Helenin	0.3	1.0	Salacetol	1.0	5.0
Antispasmin	0.05	0.2	Helleboreine	0.03	0.12	Salicylamide	0.15	0.5
Antithermin	0.2	0.8	Hemalbumin	1.0	5.0	Saligenin	3.5	9.0
Apocodeine	0.02	0.1	Hemo-gallol	1.5	4.0	Salipyrine	1.0	4.0
Arbutin	1.0	4.0	Hemol	0.5	1.5	Salocoll	1.0	5.0
Asaprol	1.0	4.0	Hydracetin	0.2	0.4	Salophen	1.0	4.0
Aspidospermine hydrochlor	0.003	0.006	Hydrargyr. thymol. acet.	0.005	0.02	Somnal	1.0	4.0
Baptisin	0.03	0.1	Hydrastinine	0.05	0.2	Spermine	1.0	4.0
Benzanilid	0.5	2.0	Hydroquinone	0.5	2.0	Styracol	1.0	5.0
Benzonaphthol	0.5	2.0	Hypnal	1.0	4.0	Symphorol	1.0	4.0
Benzosol	0.75	3.0	Hypnone	0.05	0.2	Tannigen	0.5	2.0
Betol	0.5	2.0	Iridin	0.3	1.0	Terpinol	0.5	1.0
Boldol	0.25	1.0	Iodocaffeine	0.5	2.0	Tetronal	1.0	4.0
Caffeine-chloral	0.4	2.0	Iodotheobromine	0.5	2.0	Thermodin	0.5	2.0
Carniferrin	0.5	2.0	Iodopyrine	1.0	4.0	Thyroidin	0.05	0.5
Chloral hydrocyanate	0.02	0.1	Lactophenine	1.0	5.0	Tinct. naregamia alata	1.0	4.0
Chloralimide	1.0	4.0	Lupetazine	1.0	4.0	Trional	1.0	5.0
Chloralose	0.75	3.0	Lycetol	0.5	2.0	Tussol	0.5	2.0
Cornutin	0.005	0.02	Lysidin	1.0	5.0	Uralium	2.0	8.0
Creosote carbonate	1.0	6.0	Malakin	1.0	6.0	Urethan	1.0	4.0
Cresalol	0.5	2.0	Methacetin	0.5	2.0	Urecidin	1.0	5.0
Daturine	0.001	0.003	Methylacetanilid	0.3	1.5	Uropherin	1.0	5.0
Diuretin	0.5	4.0	Methylal	1.0	5.0	Zinc Bromide	0.25	0.5
Ergotinine	0.001	0.015	Migranin	0.75	3.0	Salicylate	0.1	0.5
Ethoxycaffeine	0.25	0.1						

SURGERY

OPHTHALMOLOGY, OTOTOLOGY, RHINOLOGY,
LARYNGOLOGY, DERMATOLOGY, ORTHO-
PEDIC AND GENITO-URINARY SURGERY

In charge of SAMUEL LLOYD, M.D.

Instructor in Surgery in the NEW YORK POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL

GENERAL SURGERY

Serotherapy in the Treatment of Cancer.—RICHEL and HÉRICOURT (*Medical Week*, III, No. 43, p. 513)

In the first place, serotherapy unexpectedly results in marked alleviation of the pain from which patients with cancerous neoplasms so frequently suffer.

Secondly, cancerous ulcers dry up under the influence of this treatment, and assume the appearance of a granulating wound, cicatrization even taking place over a surface of considerable extent.

A third effect of the injections of anticancerous serum is marked decrease in the size, not only of the tissues surrounding the tumor and of the lymphatic glands connected with it, but also of the tumor itself.

Lastly, in some cases, the evolution of the disease is delayed, while the general condition of the patient markedly improves.

In four-fifths of cases of cancer, serotherapy results in unquestionable improvement; but, unfortunately, absolute recovery is not obtained, for within a month or two, during which the general condition has remained stationary, the disease resumes its sway, fresh cancerous foci developing, and death ensuing as usual.

It is difficult to say whether or not the serum is a specific, though in two cases we have met with evidence of serum from immunized animals being much more active than that of normal animals.

To sum up, although serotherapy does not effect a radical cure of cancer, it is attended with greater improvement than is obtained from any other method of treatment known. It is possible that, by combining this treatment with excision of the neoplasm, still more favorable results might be obtained.

Hemicraniectomy for Exploration.—DOYEN (*Gazette des Hôp.*, 1895, p. 1252)

DOYEN has operated for exploration of intracranial lesions in the following manner: He incises the skin in the median line from the nasal boss to the occipital protuberance, and from the ends of this incision carries others toward the zygomatic arch. The bone is divided by special electric motor instruments just external to the longitudinal sinus, above the lateral sinus, and at the bottom of the temporal fossa. These instruments make a gap 2 to 3 mm. wide, and in part of the section they are made to divide the bone obliquely, so that when replaced the bone-flap shall have some support. With a chisel the base of the bone-flap is broken through in the usual way, trying to avoid injury to the middle meningeal artery if possible; but even if it should be torn across, its destruction is not necessarily followed by necrosis. If nothing appears to indicate the seat of the lesion, the dura mater is then incised in vertical lines between the branches of the meningeal artery, or a single large flap may be made with its base downward. After operation, the dura is sutured and the osteo-plastic flap restored and sutured without drainage. The entire operation lasts only 25 minutes, the turning down of the

bone-flap requiring only 10 minutes with these special instruments. If the anterior portion of the brain is free from disease, the incision may end anteriorly within the hair-line. He employs the Esmarch constrictor to diminish hemorrhage.

Fractures of the Cervical Vertebrae.—FAISST (*Beiträge z. klin. Chir.*, XIV, No. 2)

These fractures are, as a rule, looked upon as very severe injuries, which either cause immediate death or death in a few hours or days. The higher the fracture the worse the prognosis.

F. reports a case of fracture of the fourth cervical vertebra, which recovered in spite of the presence of complete motor and sensory paralysis of the upper and lower extremities. The way in which the fracture was produced was typical; it was by indirect force, in falling on the head from an elevated position. Hyperflexion of the neck was followed by a fracture at the point where blow and counter-blow met. It was therefore a compression fracture, which is the most common among vertebral fractures. According to Schede, muscular action is another cause of vertebral fracture.

Among the symptoms in all vertebral fractures is collapse, which passes away in a short time. Motor and sensory paralysis is present immediately; it is caused by the compression of the cord by the displaced bone. Extravasation of blood also occurs, but this causes compression slowly; it is an extradural extravasation from the venous plexus between the periosteum and dura.

On account of the remarkable result, F. was led to look upon the cord affection as a commotion of the spinal medulla. Although marked, the paralysis was not equally distributed over the affected area. Remarkably enough, the phrenic nerves were not affected; respiration was purely diaphragmatic. Paralysis of the rectum and bladder was not complete; priapism, however, was present.

Locally the space between the spinous processes of the fourth and fifth vertebrae was enlarged, and the fourth spinous process was markedly forward. Six weeks after the injury the callus could be felt. A constant improvement of the sensory and motor paralysis was observed.

Treatment must be instituted very early. The head must be extended and the spine supported in removing the patient, so as to prevent dislocation. The patient must lie flat in his bed with his head extended by weights. The use of the water-bed is not advisable, but pressure upon the limbs must be prevented. Operation in recent cases is not indicated. After the fourth week the faradic current was applied; later massage was used, which strengthened the muscles and improved the mobility of the joints.

An Improved Splint for the Leg.—BRUNS, of Tübingen (*Beiträge z. klin. Chir.* XIV, No. 2, p. 583).

Bruns made various improvements in Volkman's splint, so that it can be used more extensively. He gives the following description of the new splint:

The flat gutter splint is made of sheet-iron, covered with zinc, which prevents rusting. To permit the use of the same splint for limbs varying in size, the gutter is composed of two parts, which can be moved upon each other. The splint can be extended from 66 to 88 cm. For children a smaller size is made, 44 to 64 cm. To the footplate is attached a crossbeam, which can be moved back and forward

and is above the toes. On this crossbeam, by the aid of an adhesive-plaster strip, which is attached to the inner and outer surface of the foot, hangs the limb. This arrangement prevents pressure on the heel and toes. Instead of the T-shaped stirrup, a foot-rest composed of two movable arms, made of round iron, is attached to the footplate. These can be changed to various heights. Both arms are rounded on the lower end, and can easily glide on a board placed underneath them. It can thus be used without any other improvement for extension by weight.

Conservative Treatment in Crushing Injuries to the Limbs.—RECLUS (*Med. Week*, III, No. 45, p. 530)

The conservative method of treatment, according to the author, is better in cases of crushing injury to the limb than amputation, no matter what may be the nature or extent of the traumatism. He simply wraps the limb in antiseptic substances, and leaves the dead tissue to be separated from the living by natural processes, simply making an incision at the right time in the bone at a suitable spot. This method reduces the high death-rate, which usually followed amputation for traumatism.

He reports that two out of four of his cases would have undoubtedly died had he disarticulated the hip or amputated both legs at the time that he first saw them, and the results of the conservative treatment were that the patient whose hip would have been disarticulated retained the thigh, and the patient whose lower extremities would have been amputated at the thigh retained one-half of both legs, so that he can readily apply articulated apparatus. In another case, where both legs would have been amputated; the patient recovered not only with his legs, but also with his feet, and was able within a year to walk over thirty kilometers at a stretch.

His procedure is as follows: The hair is shaved from the limb up to the site of the injury, the skin is cleansed with turpentine, ether, potassium permanganate, or alcohol, so as to remove every trace of grease. The margins of the wound are opened to disclose all irregular cavities of diverticula, which are thoroughly irrigated with water at a temperature of 60° or 65° C., in order to remove all clots, foreign bodies, and splinters not adherent to the periosteum.

There should be no hesitation in rubbing and wiping energetically all the tissues with cotton swabs steeped in a strong antiseptic solution. When the whole region has thus been thoroughly and methodically disinfected, strips of gauze steeped in a poly-antiseptic ointment, with many though slightly absorbable ingredients, are introduced into each cavity, each diverticulum, and applied to each detached part.

After having thoroughly anointed the whole affected space the flesh is brought together, and around it a moist gauze bandage is drawn rather tightly. The procedure suffices to consolidate the tissues and to squeeze from the interstices any excess of antiseptic substances. The dressing need only be renewed every two or three weeks.

The results of this treatment are truly marvelous. Out of seven patients six recovered perfectly, with the crushed limb wholly or partly preserved. One died from hyperacute tetanus, after twenty-five days, so that now the author associates with his treatment the antitetanic serum treatment for tetanus after Roux's and Nocard's method.

NOSE AND THROAT

Tooth Found in the Nose.—DAAE (*Archiv f. Laryngol.*, II, No. 3, p. 301)

The patient in this instance was a woman aged 53 years. Such cases are by no means rare, as the author's references to literature show. His paper is of interest as showing the two different conditions under which this peculiarity of development may happen. In one case, the bud of the tooth may be turned around 180°, so that only the root is seen from below, while the crown grows in the opposite direction and finally appears in the nose. This turning of the tooth is called "inversion." The inverted tooth is therefore absent from the dental arch.

In the other case, the tooth bud becomes turned around before the developing palatal folds unite in the median line. The folds closing later, the space which would have been occupied by the missing tooth is not left vacant, but is closed in from either side. The tooth is therefore truly supernumerary, and is called an "embolus."

The case narrated by the author was of the second variety.

Some Observations on Empyema of the Antrum.—AVELLIS (*Arch. f. Laryngol.*, II, No. 3, p. 303)

The article contains nothing new as to treatment, while forcibly illustrating how the latter must be long continued in order to effect any permanent results in chronic cases. AVELLIS does not personally place much reliance upon transillumination as a diagnostic measure. He lays stress upon some of the unusual symptoms which these cases may present, as follows:

A woman, aged 40, complained for a long time of morning malaise, bad taste in the mouth, poor appetite, coated tongue, and offensive breath. Her trouble was considered to arise from a bad stomach and she had been dieted and dosed by several physicians without avail. AVELLIS found pus trickling down behind the left side of the soft palate and thick pus in the left hiatus semilunaris. Alveolar operation and daily irrigation quickly cured all the symptoms above named. The patient gained in weight and was soon restored to her usual health.

Another patient, a girl of 18, suffered from unilateral headache and had been treated without avail by several neurologists. Empyema was found to exist. The alveolus was pierced and the case recovered after two months' daily irrigation.

A third case, female, 48, had complained for a long time of transitory edema, coming on on the right side of the face. It generally lasted for about two hours, and would go as quickly as it came. Finally A. happened to see her on one occasion when it was present. It involved the right side from the root of the nose to the canine fossa, extended up to the upper eyelid and outward to the zygomatic arch. The gums were neither swollen nor inflamed. Carious teeth were present, but gave no pain. The only discomfort felt was in the nose. Examination of the latter was negative, but irrigation of the antrum through the foramen accessorium dislodged pus. The carious roots were extracted, and after fifteen months' irrigation the case was cured. AVELLIS believes that empyema of the antrum may be responsible for certain instances of "angio-neurotic edema" so called, cases of which

have been frequently reported during the past few years.

It is of course possible that antral pus may break through the bony wall and point on the cheek. ZARNIKO has reported cases of perforation into the orbit and through the hard palate.

AVELLIS also reports a case of acute empyema caused by the use in the nose of the electro-cautery, the patient being a male, aged 40, but under mild boric-acid irrigation a cure resulted in five days. Concerning the acute form in general he expresses his conviction that cure may result spontaneously and therefore in the presence of acute symptoms of short duration our therapeutic measures should not be too vigorously employed. As to how frequently such a happy result occurs, we have at present no means of knowing.

The whole article is temperate in tone and can be heartily commended to a certain few overzealous rhinologists whose judgment needs just the balance-wheel which the author's mental machinery seems to possess.

DERMATOLOGY

Lupus of the Tongue, with Histological Examination.—J. SARIER (*Ann. de Derm. et de Syph.*, 1895, VI, p. 631)

This lesion, being very rare, is considered of sufficient interest to report. A woman, 21 years old, presented an ordinary lupus of the face, with numerous lupus plaques on the neck and right forearm. The beginning of the disease dated from the age of three years, its point of origin being apparently a submaxillary abscess. The lesions had been scraped in 1891. Treatment and medication had been of no avail, the patient being weak and not allowing vigorous treatment.

At present all of the face and the sides of the head, except the front of the left ear, show the lesion. The scalp is free, the nose reduced to a small tubercle, the mouth deformed, the lips having been invaded. The chin, the hyoid, and upper sterno-mastoid regions show the lesion. Also the neck, the left axilla, the fold of the right elbow, and the anterior surface of the forearm. The condition of the mucous membranes is of special interest. The conjunctivæ are intact. The orifice of the left nostril is obliterated by cicatricial tissue, the right admits only a stylet. The mouth, always open, shows the superior incisors carious, the inferior laid bare. Most of the teeth are carious. The palatal vault is the seat of a lupus plaque. The mucous membrane of the right cheek is cicatrized and swollen, that of the left infiltrated. The gums are ulcerated in places. The uvula has disappeared. The posterior wall of the pharynx is infiltrated with lupoid tissue. The voice is nasal, but not hoarse. Upon the tongue there are two lupus plaques—one upon the dorsum, indurated, superficial, indolent, giving to the patient the feeling of a foreign body; the second plaque is upon the left border.

The date of the appearance of the plaques is not definitely known. According to the patient, they appeared insidiously, the lesions differing in many ways from the ordinary tubercular ulcer of the tongue. Palpation reveals indurated ganglia in the submaxillary region. There is no cough and no sputum, but at the apices of the lungs, and especially on the right side, there is slight dullness by percussion with increased vocal fremitus, blowing respiration, but no râles. The general condition is good; no emacia-

tion. The histological examination showed tubercular nodules with giant and epithelioid cells. Six or eight of the follicles and twelve to fifteen giant cells were in each section. Between the nodules, disseminated in the chorion and the papillæ, are plasma cells, fusiform connective-tissue cells, leucocytes, degenerated cells. There is an elongation of the papillæ and an extreme hypertrophy of the epidermis. The bacillus of Koch was not looked for, nor were inoculations of animals made. It is remarked that the two lesions on the tongue are apparently entirely isolated one from the other. Ordinarily this lupus is not ulcerated, but mammillated and papillomatous. Histologically M. SELOIR has found lupus demi-sclereux. Here there is a lupus which is clearly papillomatous, but not sclerous. The abundance of the plasma or connective-tissue cells in hyaline degeneration the author considers of great interest.

ORTHOPEDIC

Tendon Transplantation in Infantile Paralysis

PARRISH (*N. Y. Med. Jour.*, Oct. 8, 1892) describes a method he devised of suturing live tendons to those of paralyzed muscles, and so regaining lost function. He had sutured the healthy extensor-pollicis tendon to the paralyzed tibialis-anticus tendon to remedy a case of valgus.

GOLDTHWAIT (*Bost. Med. and Surg. Jour.*, Vol. CXXXIII, No. 18) said he had operated upon four cases with this object. In one case, fully reported, of marked calcaneo-valgus, the posterior muscles were all paralyzed, with the exception of the peroneus longus and brevis, and the tendons of these muscles were displaced forward so as to rest on the outer surface of the malleolus. In this position their contraction caused extreme valgus and slight flexion at the ankle, instead of extension, as is normal. An oblique incision 4 ins. long was made so that it crossed the tendo Achillis about one inch above its insertion into the os calcis. Through this wound the peroneal tendons were exposed and divided at about the lower edge of the malleolus. The tendo Achillis was then freed, and the tendon of the peroneus brevis passed under this and attached to the tendon of the flexor longus pollicis. The tendon of the peroneus longus was then attached to the tendo Achillis, after which the wound was closed, and a plaster-of-paris bandage applied, holding the foot extended. One month later a valgus plate was applied, and this has been worn since.

The method of attaching the tendons to each other is of great importance, and unless they are firmly joined the benefit of the operation is lost. The tendon to which the attachment is to be made is split, and the end of the severed tendon, after it has been scored, is drawn through this slit, and securely held by two quilted sutures, which are so placed that when tightened the outer tendon is spread out, furnishing a broad surface for union. The valgus has largely been corrected, and what remains is controlled by the plate, so that the tread of the foot in walking is quite normal.

MILLIKEN (*Med. Rec.*, No. 1303, p. 581) records a case in which he successfully grafted a part of the tendon of the healthy extensor proprius pollicis into that of the tibialis anticus, which was paralyzed. In this case his object was to preserve the use of both the muscles. He has also suggested grafting the sartorius into a paralyzed quadriceps femoris to regain extension at the knee.

OBSTETRICS; GYNECOLOGY; PEDIATRICS

In charge of T. S. SOUTHWORTH, M.D.

Pathologist to NURSERY AND CHILD'S HOSPITAL; Lecturer on Diseases of Children at the NEW YORK POLYCLINIC

Can Maternal Mental Emotions Produce Malformations, Deformities, or Birthmarks?—Dr.

J. W. COKENOWER (*Intern. Jour. Surg.*, VIII, No. 5, p. 136)

This plan of argument is presented: First, what has been and is claimed by the advocates of the affirmative? and second, what has been done by the defense to refute the superstition of satanic progeny and ancient credulity with modern scientific embryology and pathological histology? The purpose of the paper is to examine the cause of popular belief in the affirmative, and to determine how far it is justified by well-established facts, as well as logical and scientific reasoning.

The author offers the following conclusions:

That the apparent relation of cause and effect is due to accidental physical and evolutionary coincidences, which would be less frequent if the facts could be learned previously, instead of subsequently, to the birth of the child;

That the time has arrived for exploding the theory of maternal mental emotions producing malformations, deformities, and birthmarks.

Septa Vagina; Two Cases Observed in Private Practice.—Dr. F. BOWDITCH CHAPMAN (*Boston Med. and Surg. Jour.*, CXXXIII, No. 25, p. 622)

Two cases are reported. In one, complicated with a retro-displaced uterus and endometritis, there existed an irregular semilunar-shaped septum, almost entirely closing the posterior cul-de-sac, taking origin from the posterior wall about one inch below the cervix. The septum was markedly thickened on the left side, and was continued in two incomplete fibrous ridges toward the anterior column. This patient was married, 47 years of age, the mother of two children.

The second case, an unmarried girl, 17 years of age, had never menstruated. Digital examination was interrupted by an almost complete transverse septum of the vagina, apparently of uniform thickness and giving the impression of a rather inelastic complete hymen. It was perforated sufficiently to barely admit the tip of the index-finger, and was located about $1\frac{1}{2}$ in. from the introitus. The hymen was incomplete. After rupturing the membrane with dilators, patient refusing an anesthetic, an extended examination revealed an undeveloped uterus with markedly elongated cervix; a probe, when inserted, seemed to enter two distinct pockets, indicating a probable bicornate uterus.

Treatment of Severe Hemorrhages in Infantile Pertussis.—(*Trib. med.*, No. 40, 1895, p. 797)

Among the accidents during the course of pertussis, one meets, rarely it is true, with hemorrhages. These may come from the nasal fossa, the pharynx, the region of larynx, but also from the lung, resulting in a true hemoptysis. Hemorrhage is the result of rupture of an over-filled or strained vessel wall, during the venous congestion which accompanies the paroxysm. Usually even the hemoptyses are not alarming, but at other times they may be of serious importance, as in two cases which are

related. As a therapeutic measure the author uses a 1:1000 solution of bromoform in alcohol by inhalations. A small glassful of this solution warmed to 50° C. is poured upon a plate, and the child leans over it and inhales the vapor slowly and regularly for five to six minutes. Although it may excite cough at first, it quickly checks it—for by its anesthetic effect it produces a local contraction or temporary obliteration of the blood-vessels. The author repeats the inhalations every two hours. The inhalations seem also to have a distinct effect upon the evolution of the disease itself, and on 11 cases of hemoptysis treated in this epidemic by this method 9 cases made an immediate recovery. It is also well to allow this solution to evaporate in the sickroom. In no case has he seen any pulmonary congestion following the treatment.

Hypnotic Value of Trional in Children.—Dr.

MONCORO (*Tribune med.*, No. 36, 1895, p. 726)

At a recent meeting of the Academy of Medicine the author stated that, owing to the irregular effects and dangers of other hypnotics, he had been led to use trional. It had succeeded perfectly in the insomnia of the eruptive fevers—measles, scarlatina, variola—and in malaria. The dose employed was 3 to 4 grn. before bedtime. In tubercular meningitis it had secured sleep and tranquillity, which played a large part in the cure of the patient. In pernicious malarial fever, with much cerebral excitement, 8 grn. a half-hour before the paroxysm was expected, procured calm sleep. It seemed of little service in maladies of a painful nature. Children show a peculiar tolerance for trional. Given in warm sweetened milk, between the limits of 3 to 15 grn. in the 24 hours, it might be continued several days in succession. In conclusion, trional seemed to be the hypnotic the most prompt to act and the best borne. It is more valuable, because it seems to have a specific action upon the nervous and psychic excitations of toxic origin and those in lesions of the brain and its envelopes.

Concerning the Disinfection of the Intestine by Bismuth.—DEVOTO (*Semaine med.*, No. 54, 1894, p. 466)

At the sixth congress of the Italian Society for Internal Medicine, Dr. DEVOTO is credited as saying that contrary to the observations of MORAX and VON PFUNGEN he has determined that bismuth in large doses possesses the property of decreasing notably the amount of sulphuric acid in combination among those subjects whose food consisted chiefly of albuminoid substances. He has seen indican decrease, and at times disappear, under this treatment. These two facts, he believes, have a real importance, for while the action of bismuth is poorly understood, they show that intestinal putrefactions diminish decidedly, despite the checking of intestinal peristalsis which bismuth effects.

The observations of Dr. DEVOTO are very valuable as bearing upon the intestinal disturbances of infancy accompanied by putrefactive changes. Bismuth has long since proved itself a very valuable drug in these conditions, but his investigations throw some light upon the reasons for the high estimate placed upon its use. If bismuth will check intestinal putrefactions as shown by the disappearance or marked decrease of the products of such putrefaction, its value as an intestinal antiseptic is established; while its entire harmlessness, even in large doses, and moderate cost render it one of the most generally available drugs for this purpose.

SOCIETY MEETINGS

NEW YORK ACADEMY OF MEDICINE

SECTION ON ORTHOPEDIC SURGERY

December 20, 1895

LE ROY W. HUBBARD, M.D., Chairman

Cases Illustrating the Result of Bier's Treatment in the Conservative Treatment of Tubercular Joint Disease

Dr. WILLY MEYER: Several years ago Dr. BIER, first assistant of Professor VON ESMARCH, of Kiel, conceived the idea that chronic hyperemia might favorably influence tuberculous troubles. This idea was suggested by the observation of the late Professor VON ROKITANSKY, of Vienna, that persons with chronic cardiac disease did not develop tuberculosis of the lungs. He first tried the effect of active hyperemia, but the application of the method was found to be very difficult, and, moreover, gave negative results. He next experimented with chronic passive hyperemia, using for this purpose the well-known Esmarch bandage. This bandage was applied above the respective joint just tightly enough to produce a certain amount of venous stasis. Dr. BIER soon found that this treatment alone frequently resulted in much immediate improvement, and it was soon evident that it was capable even of effecting a cure. He first presented this method of treatment to the Surgical Congress at Berlin in 1893. A second communication was presented in 1894, and some astonishing results were reported. Having read his first paper, I tried the method on a case of tuberculosis of the elbow-joint, but the result was not favorable. Also the next case did not give a good result. So I felt that it was proper to test this treatment further before reporting upon it. It is remarkable that there has been, as far as I know, nothing said about this treatment on this side of the ocean.

I have treated in the past two years quite a number of cases by this method in private and dispensary practice. By simply applying, for instance, in a case of tubercular knee-joint, an elastic bandage so tightly around the femur that the return of the venous blood is impeded, it will eventually be found, after a while, that the fungous growths become harder, the whole joint assumes more the appearance of cicatricial tissue; and if this treatment be combined with proper extension, a cure may be effected. MIKULICZ has emphasized that injection of the iodoform glycerin emulsion greatly hastens and aids the treatment. Every joint can not be favorably influenced in this way. Unfortunately one of the most important of these, from an orthopedic standpoint, the hip-joint, cannot be so treated, because there is, so far, no means at our disposal to produce a venous stasis in the same. Tuberculosis of the testicles and of the sheaths of tendons can also be treated in this way. In a number of cases the treatment may result in the formation of a cold abscess. As soon as diagnosed this must be aspirated and injected with iodoform emulsion. In tubercular sinuses and ulcerations the granulations may become quite swollen and protruding; but this is not important. The only drawback to the treatment is that sometimes an acute hot abscess forms within the joint. If this occurs, the joint must be resected. If we suspect the presence of a tubercular sequestrum, of course this must be removed. For all these reasons the patients must not be left to themselves, but kept under medical observation.

I wish now to bring in patients illustrating the effects of this treatment. This first child of four years had been treated for a considerable time with an extension splint before I saw her, early in October of this year; and all the symptoms of tubercular knee-joint disease (white swelling) were quite marked and progressive. Ten weeks ago the knee was perfectly stiff, contracted, and very painful. Today it can be moved, without pain, to quite a good extent. There has been purposely no apparatus nor injection used by me so far, in order to demonstrate the effect of the chronic passive hyperemia alone. I shall now also resort to extension, fixation splint, and intra-articular iodoform injections, in addition to BIER's treatment.

Here is a young girl of 10 years who had been treated by me for a considerable time for tuberculosis of the tarsus by injections of iodoform emulsion in the fall of 1893. I finally operated, and found a sequestrum in one of the cuneiform, which was removed. A small and very obstinate sinus was left, which actually baffled treatment. Yet within six weeks after the beginning of the use of the elastic bandage, this sinus closed, never to open again. She has been able to walk around nicely for some time. I have had a similar result as regards closure of obstinate sinuses after resection of the knee-joint in a case treated by the same method in the German Hospital.

Here is another little girl, of six years, affected with tubercular elbow-joint disease, and here a man, 47 years of age, also with tubercular elbow-joint disease. Both cases happened to come for treatment to my Post-graduate Clinic on the same day, near the end of September, 1895. The condition was characteristic of tuberculosis of the elbow-joint. I applied the elastic bandage to this man, also without using additional injection of the iodoform emulsion, and the progress has been steady and marked. Instead of a stiff and very painful elbow he has very considerable motion in the joint at the present time, and that without any pain. He is a carpenter, and is working every day at his trade for the last three weeks. The little girl's joint appears cured with almost perfect motion.

It should be insisted upon that the patient must remain under constant observation for a considerable time, as either an acute or a cold abscess may develop. Both should be recognized and treated early. The bandage is best applied in a slightly different place from time to time, to avoid atrophy of the muscles. In the case of children it should be applied quite lightly at first, in order to gain their confidence and let them get accustomed to the treatment. I instruct the parents to leave the bandage on as long as possible—say half an hour, or until the patient cannot tolerate it any longer. It is then removed, and massage applied. Then it is reapplied. Soon it can stay day and night, to be removed in the morning and evening only, to give massage. The part of the extremity below the affected joint should be surrounded by a snugly applied flannel bandage.

Dr. SHAFFER: I should like to ask if any records have been kept of the temperature before and after treatment.

Dr. MEYER: No such records have been kept in dispensary practice, but I have often found that the joint was, if anything, warmer during the treatment.

Dr. N. M. SHAFFER: I have had no practical experience with this treatment, although I am exceedingly interested in it. I am certainly unprepared to account for the improvement which has taken place in these cases, but it has occurred to me that,

in addition to the venous congestion produced by the bandage, there is also a certain amount of immobilization and direct control of the muscles. If the application of the bandage results in venous congestion, hyperemia, and inflammation, we have then a condition which in itself may prove beneficial. I have known patients with chronic joint disease, as a result of an accidental injury and an acute inflammation, to improve rapidly. I have also seen acute abscess and cold abscess follow such accidental complications. I think immobilization and the probable establishment of inflammation may account for much of the improvement.

Dr. LE ROY HUBBARD: In *The Lancet* for November, 1892, an article on this method of treatment was published by Mr. BROWN, of Leeds. He had treated 11 cases of chronic joint disease involving the various joints, but with an entirely negative result. I should like Dr. MEYER to state if he considered the case of knee-joint disease presented to be an example of synovial or bone disease.

Dr. GALLANT: I would like to ask when the use of passive motion is indicated? BIER recommends that the patient be permitted to use the limb. Dr. RIDLON made it a practice to exert considerable pressure by a snug bandage above and below the knee when applying the Thomas splint, claiming this procedure gave better results than when the bandage was loosely adjusted.

Dr. ROYAL WHITMAN: It seems to me discouraging if BIER admits this method is useless when the bone is affected, because in the majority of early cases in children, at least, the disease is originally confined to the bone. I cannot see how such a treatment as this can be anything more than an adjuvant to the usual mechanical and operative treatment. And if its merits can only be tested by employing it alone I should suggest that it be tried upon those inveterate cases of chronic synovial disease in adults which slowly progress and in which apparatus cannot be employed. In the little girl presented it is certain that the most urgent needs are the rectification of the deformity and the protection of the diseased joint. For in this treatment, as with the iodoform injections, much more is claimed than can find support either in pathology or clinical experience. I do not understand, however, that Dr. MEYER claims this method is to supersede other recognized methods of treatment.

Dr. T. HALSTED MYERS: In 1894 I tried this method on two cases at the Orthopedic Dispensary. One was a case of tubercular osteitis of the ankle-joint, and the other one of tubercular osteitis of the elbow-joint. I began by applying the bandage lightly for one hour, and instructed the parents to apply it three times a day, increasing to six times a day. One of the cases tolerated the bandage for two hours at a time. I was unable to observe any improvement from the treatment, which was, however, tested for a period of two months only.

Dr. MEYER: I wish to say regarding the little girl that has been first referred to, that the treatment was attempted with the idea of seeing what could be done in the hands of comparatively ignorant people by the new treatment alone without any other method. I think that in her case the disease is not merely synovial. I have said that the new treatment is also applicable to tubercular bone disease. But, of course, where there are sequestra, the treatment cannot be curative until these sequestra have been removed. BIER himself expressly states that we should not trust to the elastic bandage alone. In many instances rest in a splint and iodoform injections must be added. He believes that the chronic

passive hyperemia produces cicatricial tissue, and that in this tissue the tubercle bacilli, not being properly nourished, can no longer survive. I think, Mr. President and gentlemen, if you will also try this method sufficiently long you will quite often find that the formerly soft masses soon become distinctly harder. This was very evident in the two cases of elbow-joint disease just presented. I do not, of course, claim that this treatment is successful in every case. But I believe it is certainly worthy of careful trial in cases of joint disease before resorting to excision. For the differential diagnosis between specific joint disease and tubercular joint disease I have found that this method is occasionally useful. I am positive that the treatment is worthy of a careful and extended trial, not only in chronic tubercular joint disease, but also in cases of persistent sinuses after operation. I should add yet, that I have seen—as BIER has—very good results of this treatment in stiff joints due to articular rheumatism and a passed gonorrhoid inflammation.

Severe Torticollis

Dr. WHITMAN: Here is a girl showing the result of the open incision on a severe case of torticollis performed last August. The child is nine years of age, and the torticollis had existed for six years. I bring the case to show the effect of immediate over-correction by division of all the contracted parts, followed by forcible correction or massage at the time of operation. The child had the round shoulders and the lateral curvature of the spine, as are usual in cases after long-continued distortion of the neck, but the back is now normal in outline. I think in all these bad cases the open incision is necessary. At present one can hardly detect the scar. There is still hemiatrophy of the face, but this is much less marked than before the operation. I am sure that the ordinary subcutaneous division would not have given such a good result. She wore a plaster-of-paris jacket with a jury-mast for a number of weeks.

Dr. SHAFFER: Whether the operation is done by the subcutaneous or open incision, the immediate correction of the deformity by stretching is a rational procedure, and is one which I have employed for a long time, but in many cases it has seemed to me that the subcutaneous incisions have been sufficient. I should feel inclined to employ daily manual pressure or employ some form of apparatus for a period of at least a year. If this is not done I should be afraid of relapse.

Dr. WHITMAN: The mother has been instructed to massage the side of the neck and perform manual over-correction daily. I should not dare to do the sweeping subcutaneous incision referred to by Dr. SHAFFER, for in this case it was necessary to expose the sheath of the vessels in the division of the bands of contracted fascia.

Congenital Dislocation of the Hip

Dr. T. HALSTED MYERS: This is a case of congenital dislocation of the hip, which was operated upon through a posterior incision about three years ago by CZERNY. The girl is now nine years of age. She was in bed nine weeks after the operation, and wore an apparatus for two years. Before operation there were about five-eighths of an inch shortening, and it is at present one and three-quarters of an inch. There is well-marked telescoping now. There is now no pain on manipulation or in walking, and the mother states that the girl walks much better now than before the operation.

Dr. R. H. SAYRE: This little boy had a posterior

dislocation of the hip. When 16 months old he had a limp which puzzled a number of physicians who saw him. I made a diagnosis of congenital dislocation of the hip, and this was confirmed by Dr. KETCH. I then applied a long splint with a thoracic band, and a leather girdle about the pelvis. This he wore from January, 1891, to November, 1893, and during this time traction was made on the leg. The shortening at first was five-eighths of an inch, without any apparatus, and when the limb was pulled down the diseased limb was one-fourth of an inch longer. There is now about a quarter of an inch shortening. While he was under treatment the dislocation changed from a dorsal one to one under the anterior inferior spine. I have only seen him at long intervals, yet I think the result is as good as if I had operated upon him.

Here is a little girl about four years old, with double congenital dislocation of the hip. I propose to operate upon her in a few days.

Dr. WHITMAN: The case shown by Dr. MYERS I saw two years ago. At that time it was an evident relapse after the operation. The case of Dr. SAYRE may be an anterior dislocation, but seems to me more like a bending forward of the neck of the femur. The result is very good, and it is not likely that the dislocation will be progressive as in the ordinary dislocation on the dorsum of the ilium.

Dr. MYERS: I treated a case like that of Dr. SAYRE by the same kind of apparatus with a girdle, and reported it in the *Annals of Surgery* of December, 1895. In this case also the dislocation became an anterior one.

Congenital Dislocation of the Knee

Dr. HENRY LING TAYLOR: This is a rare affection. Of 155 cases of congenital dislocation, 145 were at the hip and 2 at the knee. Professor WOLFF had described a case, and collected 29 recorded cases. The cases of HAMILTON, SAYRE, and MYERS are included in WOLFF's list. Dr. GIBNEY has reported two cases, both bilateral with rudimentary patellæ and other deformities. Dr. KETCH reported a unilateral case of dislocation of the tibia forward, with genu-valgum. In September, 1895, a small infant was brought to Dr. TOWNSEND. There was genu-varum with great laxity of the external lateral ligaments of the left knee, and a strong tendency to backward displacement. The abnormality was not due to bending of the shafts of the femur or tibia. A case was brought to me in May, 1888—a boy of seven months, in whom the peculiar condition of the knees was noticed immediately after birth. He was one of twins, each weighing 7 lb. There were no deformities in the family. This child was born by the breech, so that the feet lay on either side of the after-coming head. The knees were at once observed to be bent forward. After being straightened they would spring back to the abnormal position on the removal of the pressure. The popliteal spaces were smooth, but there were creases in front of the joint. The natural contractions of the quadriceps increased the hyperextension. The knee was not observed to move in the direction of flexion. The ligaments of the knee were much relaxed. The knees could be easily hyperextended to about 30° when the child was seven months old, while forced flexion was considerably less. Under all manipulations the head of the tibia failed to slide back fully into its proper position. No rudiment of the patella was found at this time by several surgeons. The treatment consisted in holding the knees at the limit of comfortable flexion, and in preventing lateral motion by light splints. After four months

there was considerable voluntary flexion; hyperextension was diminished and flexion was increased. After one year there was but little hyperextension or lateral motion in the knees. The patella could then be felt as a very small nodule in the quadriceps tendon. Braces were then applied to give proper support. In 1891, when three and a half years of age, the patellæ were found to be well developed. He is now eight years old, well grown, and rather heavier and more active than his twin brother. No abnormality in his gait is noticed without braces, though these are worn most of the time for protection. There is still slight lateral motion.

Of 34 cases of congenital dislocation of the knee, in 24 the tibia was displaced forward; in 18 it existed on both sides. In 12 cases no patellæ were found at birth, or for some time afterward. In only one case has the absence of the patella been anatomically demonstrated. Of the prefemoral variety there are two types: one bilateral, with other deformities; the other unilateral, in otherwise perfectly formed children. The case reported by me is an exception to this rule. Lateral motion has been noticed in many cases, both bilateral and unilateral. The defect in development seems to be the proper explanation of its causation. Many cases give a history of breech presentation. It is possible that this position was assumed owing to the abnormality at the knees. There are no statistics enabling us to state positively as yet what is the ultimate result in these cases, but orthopedic treatment, when faithfully carried out, appears usually to be successful.

Dr. A. B. JUDSON: Some years ago Dr. JOSEPH WIENER showed me an interesting case of this kind, soon after birth. Another child in the same family was affected in the same way. The apparent absence of the patella has attracted considerable attention. Dr. HARTIGAN, of Washington, has reported a case that he has observed for seven years. A number of physicians there examined the case at one time, and all agreed that there was no patella, but subsequently the patella was developed. Dr. H. G. DAVIS also reports a case of congenital dislocation of both knees and both hips. The apparent absence of the patella has led to the report of a good many cases in which it is not stated whether or not there is a dislocation. The most interesting case of this kind that I recall has been reported by Mr. HILTON, in which the child received no treatment and was found, when 22 months old, walking on the femoral condyles and sucking one of her toes. After treatment she walked unsteadily when 11 years old, but at 16 she walked long distances without defect in gait, and carried heavy burdens. It appears that the simplest mechanical treatment is effective in these cases. It is not difficult to keep the broad surfaces of this joint in place, as they are directly opposed to each other. In the hip, on the contrary, the congenitally dislocated femoral head is in contact with the slanting outer surface of the pelvis. Mr. W. J. LITTLE states that the patella is not absent, but late in development.

Dr. WHITMAN: There is a typical case of double dislocation at the knee, with double club-foot, now under treatment at the Hospital for Ruptured and Crippled. In this case the apparent absence of the patellæ was observed, but now, at the age of nine or ten months, the patellæ can be felt as very small nodules. I have seen one or two other cases in which the deformity was less marked, and unaccompanied by club-foot, there being only an inability to flex the leg. Correction has been effected by simple massage carried out by the mother.

Dr. R. H. SAYRE: The only case of this kind that has come under my personal observation came in 1889. There was very marked hyperextension, so that the child could kick its toes against the abdomen. The hyperextension was corrected by manipulation, and wooden splints carved to fit the leg. When the child was about two years old the patellæ could be readily made out. When the child was old enough to walk it wore, for about eighteen months, an apparatus to prevent hyperextension, and ultimately recovered.

Dr. V. P. GIBNEY: I have found in a number of these cases a deformity of the hand, for which Dr. ABBE has suggested the name of "walrus fin." The treatment in all these cases has been very satisfactory. I recall seeing, some years ago, a case of congenital dislocation of both knees, and club-foot, and a peculiar deformity of the knee, by which the thigh was in extreme abduction, forming almost a right angle with the body.

Dr. TOWNSEND: In one of these cases, which was kept under observation for two or three years, the patellæ were very small and did not increase in size during this time.

New Instruments

Dr. A. B. JUDSON: I wish to exhibit a new snap-joint for the brace commonly used for stiffening the knee in cases of infantile paralysis. The forged steel spring often used in this kind of brace prevents the bending of the upright to secure better adjustment of the apparatus. It is desirable to be able to do this in order to adapt the instrument for the relief of an incidental genu valgum or varum. The spring in the apparatus which I now show you has therefore been made of a simple steel rod, which may be easily changed in shape and length. The usual disk has been retained, but the bolt is withdrawn by the motion of a short lever acting transversely, and made of perforated sheet steel, through which the bolt passes loosely, while the end of the steel rod passes loosely through a perforation in the upper end of the bolt. This mechanism is easier to make than the forged spring, with its revolving inclined plane. It also admits of ready repairs and renewal of parts.

Hallux Valgus

Dr. TESCHNER: I desire to present a little instrument for the protection of a hallux valgus. It is boat-shaped and made of rubber. They are made right and left. I have found in several cases that this little contrivance has given an unexpected amount of relief. It is applied with a strip of adhesive plaster, and a certain amount of abduction is produced by it.

Dr. R. H. SAYRE: My father brought some of these from Paris in 1884, but we could not get any one in New York city to make them. They are now manufactured in Chicago to order to fit a cast of the feet.

Confidential Communications.—A bill has been introduced in the United States Senate providing that, in the District of Columbia, no physician shall be permitted, without the consent of the person afflicted, to testify to any facts coming to his knowledge in his professional capacity, and which were necessary to enable him to act in that capacity, whether such information shall have been obtained from the patient or his family, or from the person or persons in charge of him. This is not to apply to evidence in criminal cases and the disclosure shall be required in the interest of public justice.

GENERAL MEETING

January 2, 1896

JOSEPH D. BRYANT, M.D., President

Infantile Intussusception.—A Study of 103 Cases Treated Either by Intestinal Distention or Laparotomy

Dr. FREDERICK HOLME WIGGIN: It is a strange commentary, on the advancement made by our science, that at the close of the nineteenth century we are met to consider upon the comparative merits of the two methods of treatment of intussusception suggested many centuries ago. My attention was specially directed to this subject by two cases of intussusception coming under my own observation. I found that comparatively little had been written about it as compared with the articles that had appeared in English literature. Ninety-eight per cent. of all cases of infantile intussusception left to themselves prove fatal, sloughing and other ultimate results being considered; and hence the importance of the theme I present to you this evening.

The general opinion, both lay and professional, seems to be that laparotomy on a child of 12 months or under, for intussusception, is uniformly fatal, and that the best method of treatment is by enemata of air or water.

The first case coming under my own care was that of a child of four months, seen on June 23, 1894. The child had always been more or less costive, and for four days previous to my visit had been quite fretful, and had therefore been jumped up and down constantly. Several doses of castor oil and several enemata had been given before I saw it. The next day there were stools of mucus and blood, and a tumor soon protruded from the anus. At my next visit I found a cylindrical tumor in the left inguinal region, and diagnosed intussusception. One quart of warm saline solution was given as an enema, and the child inverted, but massage of the abdomen was avoided. The reservoir containing the saline solution was raised three feet, and the tumor was partially reduced. A second enema was given with the reservoir raised four feet above the child, and this completed the reduction, after which convalescence was uninterrupted.

Dr. WILLIAMS has recorded in *The Lancet* for 1894 a case of intussusception occurring in a male infant eight months old. There was a history of intestinal derangement for one week previously. Examination showed distention of the abdomen and an abdominal tumor. Inversion combined with massage and an enema, and followed by inflation or air, failed to reduce the tumor. A solution of 1½ dr. of citric acid in 8 oz. of water was then thrown into the bowel, and quickly followed by 2 dr. of bicarbonate of sodium dissolved in 8 oz. of water. The nates were held together for several minutes, when it was found that the tumor had disappeared. Vomiting ceased, and the infant recovered.

Dr. F. TAYLOR and Mr. GOLDING BIRD report a case of an infant of eight months treated by inversion and inflation under chloroform. The necropsy revealed the fact that the bowel was unreduced. Forcible inflation with air was then tried unsuccessfully. Under water-pressure, however, reduction was effected, but there were several points at which the peritoneal and muscular coats of the bowel had ruptured.

Mr. MORTIMER reports in *The Lancet* for 1891, a case of intussusception in an infant of eight months, coming under observation on the fourth day. An abdominal tumor was found on examination under chloroform narcosis. This procedure was followed

by collapse. After stimulation, two fluid enemata were administered, and reduction effected. Opiates were given, and for two days the only symptoms were occasional pain and increasing abdominal distention. The tumor then reappeared. Under chloroform an enema of 10 oz. was given, and followed by other injections, and the tumor partially disappeared. The next day one pint of water was injected under a lower pressure. A few hours later the child died. The necropsy showed three points of rupture in the descending colon.

Dr. EDWARD DEASLEY reports in the *Lancet* for 1894 a case of ileo-cecal intussusception occurring in an infant of seven months seen on the fifth day after the protrusion of the bowel from the anus. On pushing back the bowel an abdominal tumor was felt. Under anesthesia, a pint of water was injected with a head of 2 feet, and the abdomen massaged. The tumor disappeared and the bowels moved twice. The next day, as the infant was drowsy from opiates, these were discontinued. That evening the infant vomited, and during the ensuing 24 hours the bowel again protruded. It was reduced twice by enemata under chloroform at intervals of a day. Death occurred the day following the second reduction. The necropsy showed the invagination still unreduced, and that its reduction could have been easily effected by laparotomy.

Mr. J. D. MORTIMER, in the *Lancet* for 1891, reports a case of intussusception in an infant of three months, seen on the first day. After inflation of the bowel with air the tumor disappeared. Opiates were given. Some hours later the vomiting recommenced, and the abdomen became distended, and the infant died in collapse. The necropsy showed the invagination still present. An attempt was then made to reduce the invagination by the injection of water under a head of two feet. This reduced all but 1 inch of the ileum, the cæcum and vermiform appendix. A pressure of three or four feet was then tried, and only produced a little more reduction, while it caused three ruptures in the bowel just below the intussusceptum. It was found that the invagination could be reduced easily by manipulation from below. Owing to the swelling of the valve it is probable that at the moment of complete reduction the bowel would have ruptured. Mr. MOLE has published in the *Bristol Medico-Chirurgical Journal* for 1894 some experiments on infantile cadavers, from which he concludes: (1) That no harm can be done healthy intestine by enemata of fluids under a moderate pressure; (2) that hydrostatic pressure is more uniform and therefore less likely to cause rupture of the bowel; and (3) that the part most likely to be injured by over-distention is the transverse colon.

Mr. HOWARD MARSH, of London, has reported the first successful laparotomy on a child under twelve months. Mr. EDMUND OWEN reports, in the *British Medical Journal* for 1885, a case of intussusception occurring on the day of the child's birth. Digital exploration proved the bowel to be pervious. Under chloroform an enema was given without result, and the same result followed an injection given the next day. Laparotomy was then performed, and an artificial anus made in the first piece of small intestine presenting in the wound. The child survived this enterectomy six days, dying when nine days old.

The total number of cases of infantile intussusception reported in this paper was 103, nearly 50 per cent. of which occurred in about equal proportions in the fourth, fifth, and sixth months. Eighty-nine per cent. were of the ileo-cecal variety. PRITCH-

ARD has called attention to the probably important part played by external violence in the production of this affection in early life. He refers particularly to the picking up and careless handling of children. A. JACOB has also called attention to the serious results that are likely to follow violent jumping up and down of young children.

Nothing remarkable in the symptomatology was presented by these cases under consideration. Tenismus was present to a marked degree only in those cases in which the gut protruded from the anus, or the tumor was low down in the rectum. The intensity of the symptoms depended upon the amount of constriction, as indicated by the character of the pain and the amount of blood passed from the anus. Several reporters called attention to the necessity of making conjoined abdominal and rectal palpation in detecting the presence of a tumor. There was a protruding anal tumor in about 5 per cent. of the cases. Cure by sloughing was met with only twice; it is a very rare termination.

Of the 39 cases treated only by inflation or enemata, 16, or 41 per cent., recovered. The average hour of beginning treatment in the successful cases was the forty-first from the onset. The histories were very deficient as to details of treatment, such as the quantity of fluid injected, and the pressure employed. In one case nine enemata were required to bring about a permanent reduction of the invagination. Chloroform narcosis was employed in three cases while distention of the bowel was being effected. Twenty-three cases in this group terminated fatally, giving a mortality of 59 per cent. The average age of the fatal cases was five months, and the average hour at which the treatment was begun was the sixty-ninth. In one case while the enema was being administered in the inverted position under chloroform, the child vomited, inspired the vomited material, and died. In all these cases there is the history of partial reduction, of uncertainty as to the result, and the necessity for repeating the enemata. The necropsies showed gangrenous and invaginated bowel, and lacerations. In 72 cases where inflation or enemata were employed (some of these cases were afterward subjected to laparotomy), failure to effect reduction occurred in 54, or 75 per cent., which would have represented the mortality of this method of treatment had no other plan been tried, thus taking them out of this category. While there is little or no danger of injuring the healthy intestine of an infant by a hydrostatic pressure of 6 lb. to the square inch, the experiments of BATTEY and MOLE have shown that under moderate pressure, where no obstruction exists, the enema can be made to pass the ileo-cecal valve, and MOLE has proved that 1½ pint of water injected with a pressure of 1½ lb. to the square inch into an infantile colon will distend it and pass the valve. If it is desired to treat infantile intussusception by intestinal distention—which I am free to admit I would be unwilling to do now—at least 1½ pint of tepid saline solution, elevated not over three feet, may be injected once; and if not successful, laparotomy should be performed. If the tumor is apparently reduced, the child should be placed in its crib and quieted by other means than opiates, so that the physician may early detect any recurrence of the symptoms of obstruction. After the employment of enemata, there is always a lull of a few hours, due to shock, stoppage of nursing, etc. The chief advantage of the method of intestinal distention has been well said to be "the slight parental opposition to its employment." Mr. BRYANT has expressly stated it to be his belief that notwithstanding

ing that intestinal distention is sometimes successful, it is always dangerous, and Dr. CHARLES K. BRIDGON, of New York city, has recently written to me that he considers "the use of enemata as simply trifling with a very grave condition."

Of the 64 cases of infantile intussusception treated by laparotomy, 21, or 32.8 per cent., were successful, thus making the mortality 67.2 per cent. In the successful cases the average age was 6½ months, and the average hour of beginning the operation was the forty-fourth from the onset. In the fatal cases the average age was about five months, and the average hour the one hundred and second. Excluding those cases in which the operation was abandoned, the bowel incised, resected, or an anastomosis effected we have 45 cases, only 24 of which were fatal, or a mortality of 53.4 per cent. If we consider only the operations that have been done since the perfected technique of abdominal surgery has become generally known—say since 1889—and excluding, as before, those cases in which the bowel has been incised or excised, we have 18 operations with only 4 deaths, or a mortality of 22.2 per cent. This, I believe, is a fair estimate of the present risk from abdominal section in this class of cases if done within the first 48 hours. If the patient be found in collapse, no operation should be undertaken until reaction has been brought about by stimulation. If a case should be met with in which the invagination could not be reduced—an unfortunate complication due to delay—I believe the best method of treatment is that devised by the late Prof. H. WIDENHAM MAUNSELL. The best method for reducing the invagination is to encircle the tumor below its apex by the finger and thumb, while the intussuscepti or sheath is held a few inches lower down and the apex of the tumor is pushed upward. Traction from above should be avoided.

It is to be hoped that this clinical study of infantile intussusception will impress upon both the profession and the laity the fact that acute intussusception is a form of strangulated hernia, that the subacute variety is a reducible or irreducible hernia, that enemata are uncertain and far from safe, and that if laparotomy be performed within the first 48 hours 78 per cent. should recover.

Dr. A. JACOBI: Statistics, I believe, are very deceptive in connection with this disease. The reported cases are exceedingly few in proportion to the number of those which must have occurred. I have seen a number of them, yet I have only published one case, and that was many years ago. I believe many others have also failed to publish their cases, both good and bad. It is very probable that many of these cases are now more frequently seen by a consulting surgeon than by a consulting physician. This probably explains the fact that I have seen fewer cases of this kind in recent years than formerly. The only statistics valuable at this time would seem to be those of cases which have been operated upon, and from which we can calculate the percentage of mortality.

I believe that infantile intussusception is a preventable condition in a large proportion of cases. A healthy intestine is not very apt to be invaginated, although it is more apt to be invaginated in the young infant on account of the loose attachment of the mesentery, and the region is more exposed to violence. Many years ago a case was reported in which invagination took place during a severe spasm of whooping-cough—a purely mechanical cause. Many of these children have previously suffered from constipation or diarrhea. In the

former it is quite possible that the straining may give rise to the invagination. Where diarrhea lasts for a considerable time, the deeper tissues of the bowel will become involved, and it is not uncommon in those cases of chronic diarrhea for a localized peritonitis to be set up. It is similar to the process seen in the intestine of the adult who has suffered from typhoid fever. If the diarrhea, no matter from what cause, is not allowed to go on, the danger of a subsequent peritonitis is certainly avoided, and in this way infantile intussusception is to a certain extent preventable. I recall a case seen many years ago in which the autopsy showed numerous perforations of the outer layers of the intestine at spots where the peritoneum of the intestine was thickened and stiffened. There had been a history of intense diarrhea for two previous summers, and this, I believe, explained the condition found.

I am of the opinion that if enemata, correctly employed, have no effect within a very few hours, the surgeon should be notified. Only a moderate pressure is necessary, and more than this is dangerous. We should remember that the intestinal tube is not an iron pipe, and is not governed by the laws of hydrostatics only. The normal intestine will not bear a high pressure, and I have come to the conclusion that it is better not to use a pressure represented by more than one to one and a half feet. I am sure that I have succeeded in getting more fluid into the intestine by this moderate pressure. If, while the enema is being given, while the hips of the anesthetized patient are raised, the abdomen is kneaded in a sensible way, reduction will often be effected. I have always been in the habit of giving opium after such a reduction in order to keep the child quiet. I recall a case reported many years ago from the clinic of DUSCH, in Vienna, in which there were 22 returns of the invagination of the bowel occurring within a month, and I believe that if the child had been kept for several days under opium, this would not have occurred.

Dr. B. FARQUHAR CURTIS: In some statistics collected in 1887 I found that the mortality from operations for intussusception, including both infants and adults, was 76 per cent. In additional statistics in 1891, including those cases formerly reported, the mortality fell to 58 per cent. I have no doubt that this improvement has continued since that time, but I question very much whether there is now a mortality of only 22 per cent. In 1891 I found the mortality was 66 per cent. in the children operated upon. I think we shall be doing well indeed if we save one child in two or three. This improvement in statistics, I believe, has been chiefly due to an earlier resort to operation rather than to any change in the technique, for the latter has not changed materially since 1891.

The reader of the paper made a very important statement when he said that these cases of intussusception may be likened to hernia. I believe that these cases, even the mildest of them, should be considered surgical cases. By this I do not mean, of course, that the general practitioner should not attempt at first to reduce the invagination, but that he should remember that the advice of a surgeon should be sought. The surgeon and physician should see these cases together, for in this way the surgeon can form a more accurate opinion regarding the choice of operation than where he sees the case for the first time when it is desired that he should operate. In cases having a very acute onset there should be no delay; resort should be had to laparotomy without wasting time with enemata. Laparotomy does not

by any means exclude relapse, for quite a number of such cases are on record in which relapse has occurred within a few hours, or even as long as three months afterward. SENN has suggested that this relapse might be prevented by stitching together the mesentery at the time of operation. It is unfair, therefore, to say that relapses occur only after enemata. In my opinion the use of injections should be looked upon as of diagnostic value, as indicating whether or not an operation is demanded. If it is found that the injection must be repeated, then it is desirable to resort at once to operation. I think that the "head" of water should not exceed three feet, and that the patient should be under an anesthetic. Only a pint of water should be thrown in at one time in children, and this should be allowed to flow out before more is injected. Between each injection careful examination of the tumor should be made to determine the occurrence of reduction. In these little patients I do not think it is necessary to make a large opening in the abdomen; one admitting two or three fingers is sufficient to enable the operator to reduce the invagination within the abdomen. The operation must be completed as quickly as possible, and any other interference with the bowel should be avoided if possible, for such an operation as enterectomy in these young infants is almost sure to prove fatal. In all the manipulations the greatest care should be observed to preserve the body heat.

Dr. J. LEWIS SMITH: Until the last twenty-five years, intussusception was more fatal than it is now, and the reason was that up to that time the disease was not commonly recognized, or was at first treated by purgatives. I recall a case in which quite an eminent physician had given $\frac{1}{2}$ oz. of quicksilver to force a passage, notwithstanding the fact that about six inches of gut protruded from the anus. We all recognize the importance of making an early diagnosis. In the majority of cases the starting-point is prolapse of the ileum through the ileo-cecal valve, and its constriction by this valve. We should be able to make the differential diagnosis between dysentery and intussusception within thirty-six or forty-eight hours. In intussusception, after the first few hours, the stool consists of blood and mucus, and is entirely free from fecal matter. I have employed both inflation and fluid enemata, but I have been convinced of the superior efficacy of the fluid enemata. From the age of six months to one year it has been my experience that there has been no marked evidence of previous disease, such as the diarrhea of which Dr. JACOBI has spoken. In these cases it is quite possible that the intussusception has resulted from violent movements, or from the ingestion of improper food.

Dr. R. VAN SANTVOORD: Any one who has made many post-mortems on infants will recall how frequently numerous small invaginations are found in the small intestine, and these are usually considered to have been produced during the death agony, though on what ground I do not know. It has been suggested by some writer that the colic from which infants suffer is very largely due to very transient and recurrent intussusceptions. Opium is a drug which must be used with great care in the treatment of diarrhea in any case, but it should be remembered that colic may result in a more severe intussusception, and hence we should consider the advisability of using opiates in controlling the violent action of the intestine.

Dr. WIGGIN: My objection to the use of opium after the apparent reduction of the tumor by enemata is that if the reduction has not been complete, the symptoms of obstruction will be so con-

cealed that there will be a dangerous delay in discovering the true condition. That this has actually occurred in practice seems to be evident from the histories I have collected. It would seem that the successful cases exclusively treated by enemata were treated on an average in the forty-first hour, whereas in the unsuccessful cases the treatment was instituted in the sixty-ninth hour. This shows the very prominent part played by delay, even in cases treated by distention. In the successful laparotomy cases the average hour of operation was the forty-fourth, whereas in the fatal cases the average hour was the one hundred and fourth. These figures seem to me to speak volumes. I do not think any one can carefully read all the evidence presented in this paper and still believe that the enemata treatment is safe and reliable. I am aware that many cases of intussusception have not been recorded. The mortality of 22 per cent., I think, is a fair estimate, provided the laparotomy is done on or before the second day; if done later, of course, the mortality percentage will be entirely different. I agree with what has been said about the advisability of using a small incision—one and a half to two inches—and of reducing the invagination when possible within the abdomen. The recurrence of the invagination after laparotomy does not seem to be a common event, at least in infants.

Correction

In our report of the meeting of the Ophthalmological Section of the New York Academy of Medicine, which appeared in the November 15 issue of the BULLETIN, through an oversight, we failed to give credit for "A Case of Peculiar Pigmentation of the Cornea, Resembling Dislocation of the Lens into the Anterior Chamber." The case is to be credited to Dr. ALICE E. WAKEFIELD, of New York.

County Medical Association Elections

At the annual meeting of the New York County Medical Association, the following officers were elected: President, Dr. JOSEPH E. JANVRIN; Vice-President, Dr. HERMAN J. BOLDT; Recording Secretary, Dr. P. BRYNBERG PORTER; Corresponding and Statistical Secretary, Dr. NATHAN GROSS BOZEMAN; Treasurer, Dr. JOHN H. HINTON; Member of, the Executive Committee (for four years), Dr. JOHN SHRADY.

That New Light

The marvels of Prof. ROUTGEN's new photography are said to be even greater than those which were described in recent *Sun* dispatches. All the Professor's experiments have been successfully repeated in London. It has been proved that the strange medium which produces images of hidden objects on a photographic plate is not light at all. It is equally incorrect to describe it as electricity. It is some force or influence produced by Crooke's tube when excited in a peculiar manner, but it is not the visible light or glow which comes from the tube. That visible light has the same qualities as an ordinary light. The invisible new medium has not the same qualities. For instance, it will not penetrate clear glass. It will penetrate ground glass, though more feebly than wood and other organic matter. Aluminum is far more transparent than glass.

A large number of photographs have been made: pictures of the skeleton of a human hand, of a purse containing coins in which only the coins and the metal clasp of the purse were reproduced, etc.

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LANDRY'S PARALYSIS

ALTHOUGH Landry's or acute-ascending paralysis is to be counted among the rarest of diseases affecting the nervous system—so rare, indeed, that to many practitioners the term brings up no very distinct memory-picture—and although the disease is of interest chiefly to the neurologist and the pathologist, its history is so peculiar and baffling that a brief consideration of it may prove beneficial, from the point of view, not of neurology alone, but of general infectious processes.

LANDRY, in 1859, was the first to describe an acute form of paralysis, which commenced in the legs and, rapidly moving upward, involved the arms and later the bulbar nuclei, causing death by respiratory paralysis, or by foreign-body pneumonia. Sensation was but little affected, and sphincter control was retained.

Since that time a large number of cases have been reported, agreeing more or less fully with the clinical picture of the disease so well drawn by its discoverer. The points of variation have been chiefly in regard to pain and impairment of sensibility, to loss of bladder and rectum control, and to the faradic excitability of the muscles. In a typical Landry's paralysis the muscles are said to neither atrophy nor undergo change in respect to the faradic current. Many of the cases reported as instances of acute-ascending paralysis recover, so that its statistical mortality is about 36 per cent. But a goodly number of these cases are so far removed from the typical disease which LANDRY described, and so evidently cases of ordinary peripheral neuritis, that the most liberal critic could not admit them to the Landry category.

There remain, however, a considerable number of fairly typical cases where autopsies were performed. And it may be stated in a general way that in these instances the closer the adherence to the original clinical type, and the more care evidenced in the autopsy report, the less were the changes found adequate to cause death. In many instances the peripheral nerves have been found to be somewhat degenerated, and some few observers have noted changes in the ganglion cells of the spinal cord. But few anatomical lesions have been described which may be regarded as sufficiently extensive to have acted, by themselves, as causes of death. Two papers were written in 1889 endeavoring to show that the disease was essentially a neuritis, though admitting the impossibility of explaining on this hypothesis certain cases recorded by the most expert observers. Dr. HUN, in 1891, in a paper in which the pathological report was rendered in a masterly way by VAN GIESON, concludes that a satisfactory pathological explanation for Landry's paralysis is yet to be advanced.

All analogy would indicate that the disease is dependent on the presence of or the products of bacteria; and in this connection it is instructive to note that only in a very small number of reported cases have satisfactory bacteriological examinations been carried out.

While unquestionably the task of isolating a bacterium or of finding a toxine in this disease would be no easy one, we are confident that thorough and persistent efforts in this direction would meet with a gratifying reward. The effects of the disease are limited to the lower part of the nervous axis, the cerebrum remaining unaffected; they have

not, therefore, the wide distribution of symptoms which has rendered the exanthemata so puzzling to bacteriologists.

Now, it is impossible to say whether Landry's disease has a specific toxic agent of its own or whether a variety of bacteria, under favorable conditions, may select the cerebro-spinal axis for the seat of their activity. For the solution of the problem we must rely on a more painstaking disposition of the nervous systems of those who succumb to the disease.

Our apology for these extended remarks on a technical subject consists in the plea we would offer for a more general knowledge of bacteriological methods. While the practitioner cannot be expected to pass his spare moments in the manufacture of nutrient media, every physician should, at the present epoch of our art, be sufficiently familiar with the methods of culture and inoculation to know what disposition to make of material coming to his hands until able to turn it over to those willing to complete the investigation. Had all the autopsies on cases of Landry's paralysis been presided over by neurologists who were familiar with bacteriology, there is a strong probability that the etiology of that disease would be less obscure than it is at present.

ORIGINAL CONTRIBUTIONS

MEDICAL EDUCATION OF THE FUTURE*

By CHARLES W. ELIOT, M.D., LL.D., President of Harvard University

I SHALL make no apology for asking your attention to some considerations which tend to show that the education of the physician should hereafter be much more thorough and extensive than it has been or is, and particularly that preliminary training should begin earlier and be made more substantial. Inasmuch as the help of many educated persons, who are not physicians, is indispensable to the accomplishment of the needed educational reforms, I shall ask leave to keep in mind on this occasion, not only this professional audience, but also the non-professional multitude whose sympathy and aid we shall need. You will kindly see in this purpose the explanation of the fact that I shall mention in the course of this address many things already familiar to medical men.

The improvements in medical education have been very great during the lifetime of the older men in this assembly; and perhaps some of my auditors may think that the changes already wrought justify satisfaction with present achievements and a contented repose on laurels won. I wish to draw an-

other moral from the improvements of the last twenty-five years—the moral, namely, that we should be encouraged by the great improvements already attained, to work hopefully for improvements still needed. As an encouragement to further exertions, let me briefly contrast the conditions of medical education to-day with those of thirty years ago, mentioning only the rough typical facts without entering into local details. Thirty years ago there were no requirements for admission to our medical schools. To secure admission a young man had nothing to do but to register his name and pay a fee. In consequence, a large proportion of medical students were persons who, in youth, had received a very scanty preliminary training. Hundreds of young men joined the medical schools of the United States who could barely read and write, and whose powers of observation and reasoning had scarcely been exercised at all, except in their sports or in the labors which had given them a livelihood. The total period of required school attendance for the degree of M.D. did not exceed in the best schools three winter terms of four months each, and there were schools accounted respectable which had even a shorter total period than this. The main means of instruction were lectures, surgical exhibitions in large rooms appropriately called theaters, rude dissecting-rooms with scanty supervision, and clinical visits in large groups. The lectures were repeated year after year with little change, and no graded course was laid down for the student to follow during the three consecutive winters. At graduation, the examination was ordinarily entirely oral and very brief, and at Harvard, at least, every man got his degree who passed in a majority of nine subjects, every one of the nine being really indispensable. Under this system young men might receive the degree of Doctor of Medicine who had had no academic training whatever, and who were ignorant of four out of nine fundamental medical subjects at the time they received their degree. A majority of young medical practitioners were therefore uncultivated men, with scanty knowledge of medicine and surgery, who had had opportunity for but a small amount of observation by the bedside and but little practical experience in hospitals. It speaks volumes for the educating force of medical practice that out of such raw material there could be produced in the course of years so fair a proportion of skillful, humane, and successful practitioners. We have here a demonstration that medical study, contrary to a too common opinion, is to a man of ordinary intelligence and conscientiousness refining, developing, and uplifting. These excellent influences, however, it is the province of a well-conceived, systematic education to provide in youth before practice begins.

The cost of a medical education at the period of which I speak may be fairly represented by about \$350, paid to a medical school, to which sum should be added the student's board and lodging for about a year. During the other two years of the three which were supposed to be devoted to training in

*Address before the Medical Society of the State of New York, January 28, 1896

medicine, the student was ordinarily able to do something for his own support, or at least he was favorably situated as regards the cost of board and lodging. The present conditions are very different. At the Harvard Medical School the cost of a degree in money is now about \$835, beside laboratory charges; and the student must give four whole years to the school, except that during the three months of summer he may enjoy a vacation or earn something toward his support,—unless indeed he choose to take some of the many summer courses which are offered him. Accordingly, he has his board and lodging to provide for during 36 months of term-time instead of 12. He is required to pass an examination at admission, which, though not comparable to the examination for admission to Harvard College, nevertheless proves that he has had some training in a secondary school. The Harvard medical student must therefore have had some educational profit out of his early years, although the standard in this regard is still altogether too low. No student can graduate until he has passed a satisfactory examination in every one of the prescribed subjects taught in the school and in a small selection of elective subjects. The subjects of instruction are arranged in a carefully graded course which carries the student forward in an orderly and logical way from year to year through all four years. Moreover, the methods of teaching have undergone fundamental alteration. Thirty years ago there were only two laboratories in the Harvard Medical School,—a dissecting room, in which the manners and customs were as rough and unwholesome as the room and its accessories, and a little chemical laboratory in which no one was required to work. A small minority of the students voluntarily sought some laboratory training in chemistry. In our present medical school, laboratory work of many sorts demands a large part of the student's attention. There are laboratories in anatomy, medical chemistry, physiology, histology, embryology, pathology, and bacteriology, and in all these some work is prescribed, and additional work is done by many. In clinical teaching moreover the change is great. Formerly, a large group of students accompanied a visiting physician on his rounds at the hospital, and saw what they could under very disadvantageous conditions. Now, instruction has become in many clinical departments absolutely individual, the instructor dealing with one student at a time, and personally showing him how to see, hear, and touch for himself in all sorts of difficult observation and manipulation. Much instruction is given to small groups of students—three or four at a time—no more than can actually see and touch for themselves. A four-years' course of training, such as I have described, has a high degree of training power both for the senses and the reason. The old medical teaching was largely exposition; it gave information at long range about things and processes which were not within reach or sight at the moment; the new medi-

cal education aims at imparting manual and ocular skill, and cultivating the mental powers of close attention through prolonged investigations at close quarters with the facts, and of just reasoning on the evidence. These beneficent changes have been brought about within the lifetime of the youngest men here present, without shock to the community, or any serious loss to the medical schools or to any other class of educational institutions. Indeed the medical schools have profited in all respects by the changes I have described, and the schools which have been most progressive have in the long run made the largest proportional gains, allowance being made for differences in their natural sources of student supply. If, therefore, in the course of this paper I seem to you to be asking much of the coming generation, I may appeal confidently to the recent past as justifying high expectations for the future.

I proceed to describe and illustrate some of the new demands made on the student of medicine and the practitioner, in consequence of the many advances made since the Civil War in medical science and art. Before the war the microscope, stethoscope, ophthalmoscope, and laryngoscope were already in use, and had given new accuracy and certainty to the diagnosis of some diseases; but within the 30 years just past the means of medical diagnosis have been multiplied and extended in many different directions, and some of these new means depend on sciences which hardly entered at all into the education of a physician two generations ago, and on manual and ocular skill, which only a small part of the present profession possesses. To thoroughly understand and effectively use these new means imply extensive acquisition of knowledge, and much practice in delicate and accurate manipulations and refined observations. To make plain to the comprehension of non-professional as well as professional persons the gravity of these new demands on the thorough going student of medicine, I may mention as briefly as possible some of the comparatively new instrumentalities of diagnosis: (1) The recording thermometer, which has not yet been 30 years in common use, gives in many diseases definite warning of danger with a certainty which collateral symptoms do not possess. The diurnal variation of temperature in typhoid fever has furnished an almost certain method of diagnosis for that disease. Many of my hearers can remember when this invaluable instrument first came into general bedside use. (2) The examination of urine has taken on new forms, and has greatly improved in rapidity and certainty—not only sugar, albumin, and casts are detected with certainty and with estimates of quantities, but the presence of biliary matter in the urine is observed, and of materials of the blood, when destructive changes of internal organs are going on. Chemistry and microscopy conspire to make these determinations accurate and sure. (3) The microscopic examination of the blood is a new means of diagnosis of the utmost value. We

may already say with confidence,—no blood parasite, no malaria; and it is quite within reasonable hope that the microscopic study of the blood-corpuscles may lead not only to a sure diagnosis, but to an improved treatment of these mysterious and wide-spread diseases to which the vague term “malarial” has so long been vaguely applied. The increase of white corpuscles in the blood also affords valuable diagnostic indications. (4) The microscopic discrimination between malignant and non-malignant tumors is another important gain in microscopic diagnosis. It is but recently that the microscopist has stood beside the operating surgeon to tell him whether a tissue close to the path of the knife is normal or abnormal, safe or unsafe to leave behind. It is but lately that the microscope has demonstrated that a large proportion of cutaneous diseases are absolutely characterized by parasitic growths, so that the particular parasitic growth present may be relied on for diagnosis. It is only within recent years that a bacteriological laboratory, and accommodations for animals kept for inoculation uses, have been considered useful adjuncts of wards for cutaneous diseases. (5) It is, however, to bacteriology that we owe the greatest improvements in medical diagnosis—a science and art so recent that most of my auditors received their medical education before this subject entered at all into the curricula of medical schools. The extraordinary contributions of this science to medical art I can barely mention. It has already supplied a sure means of determining the presence of diphtheria, and an extraordinarily successful mode of treating that terrible disease. It has made sure the diagnosis of cholera, and holds out a good hope of arriving at successful treatment of that pestilence. It has isolated the bacillus of tetanus—a disease which has long been the reproach of medical science—and has pointed out the hopeful method of treatment. It has discovered the bacillus of tuberculosis, provided a sure test for tuberculosis in domestic animals which are in contact with man, and taught us much about the manner in which the disease may be communicated, although it has not yet achieved a successful method of treating the disease in man. The discoveries already made indicate general methods of research which should lead in no long time to great improvements in ordinary vaccination and in the diagnosis and treatment of scarlet fever, erysipelas, and typhoid fever. It has also very much improved our means of discriminating between noxious and innocuous water-supplies and milk-supplies. The contributions of bacteriology to the medical art are all the more remarkable because its methods and processes are still enveloped in much mystery—mystery which teaches us to expect much from the further developments of the new science, as it gradually disperses the fogs which now envelop it. It should be mentioned in passing that bacteriology itself owes its existence to admirable recent inventions which are not at all biological—namely, the improved immersion lens and the in-

genious methods of staining. These inventions made bacteriology possible.

What extensive fields of knowledge are familiarly utilized in these new methods of diagnosis!—physics, medical chemistry, normal and pathological histology, and bacteriology, and in addition the various skills required in exact chemical, physical, and microscopic observation and manipulation! Every physician and surgeon ought to have been trained in youth—in good part before his strictly medical education began—in these subsidiary sciences and arts, and made capable of performing himself the operations involved in these new methods of diagnosis, of understanding the present state of these methods, and also of apprehending and mastering the fresh discoveries which every decade will surely bring. The physician or surgeon who does not know how to utilize these great discoveries will, at the best, become a dependent on somebody who does.

After diagnosis there comes in many cases a painstaking search for the causes or sources of the disease—a search to be made by the physician sometimes for the patient's sake, but oftener for the benefit of his family or the community. This search has become during the last 30 years much more feasible. Pathological exploration has taught us the approximate causes of several important diseases, and therefore has taught us where to seek their sources; although, indeed, the pure cultures of bacteriology do not occur in any such simple and isolated forms in the actual environment of man. We have learnt much about the transmission of disease through drinking-water, ice, and milk. We understand better than ever before the intimate connection between some diseases of animals and diseases in man. We are put on our guard against the long-lived scales or flakes of scarlet fever, the sputa of tuberculosis, the stools in typhoid, and other excreta of diseased persons. Nevertheless few physicians seem to be capable of tracing to its source an epidemic of typhoid fever, for example, or an outbreak of scarlet fever or diphtheria. I have been told, both in this country and in England, that this faculty is rare among physicians, so that health authorities are obliged to train specialists for such service. It seems as if every physician ought to be a guardian of the community in this respect, capable of rendering the promptest and most effective service at a moment's warning. Yet to be equipped for such service means thorough acquaintance with the most recent developments of preventative medicine, and with the newest methods of research which chemistry, physics, and biology have at command. Such duties are sometimes spoken of as extra professional; but that term, so applied, seems to restrict the medical practitioner to the mitigation or cure of disease, without recognizing his more important function in the prevention of disease.

The next duty of the physician is to give such careful attention to his patient's surroundings as to compass the removal of all hinderances to nature in its restorative processes. We have a much better

conception than our predecessors of the nature of these hinderances, and, it may be added, of the nature of favorable surroundings. We know that a sick person is helped by every external condition favorable to health, and hindered by every adverse condition. The sick need, even more than the well, pure air, suitable food, and an exquisite cleanliness; yet how much knowledge, observation, and decision are necessary to the maintaining of sanitary conditions in any patient's dwelling,—and particularly in luxurious dwellings filled with dust-holding moldings, hangings, upholstered furniture, thick carpets, and elaborate knick-knacks, or, at the other end of the social scale, in the dirty and crowded dwellings of the poor, too often built on land which is cheap because ill-drained and unwholesome. Trust in drugs has greatly diminished during the past 30 years, while reliance on favorable surroundings has greatly increased. To secure favorable conditions is infinitely more difficult than to drug, and requires not only larger knowledge, but keener perception, together with a high degree of persuasive influence and authoritative persistence. The physician, who desires to give his patient every possible chance of successfully resisting his malady, must take thought for the ventilation of his room and his bed, for the sources of the water he drinks and of the milk he takes, and for the disinfection of whatever comes in contact with the patient or is excreted by him; he must direct the admission of light and air, and determine the temperatures to which the patient shall be exposed. On all these points superstitions and thoroughly irrational practices have prevailed for generations, and the physician must often be at once the defender of his patient against artificial adverse surroundings, and the persuasive instructor of his kindred and nurses. The physician's care must not only compass isolation when isolation is needed, but adequate disinfection; and if the issue be unfavorable, the proper treatment of the body which has succumbed to contagious disease. It is the constant function of the physician to teach just conceptions of contagion, and of the duties incumbent on the victim of contagious disease and on those who take care of him. It is a natural consequence of this view of the importance of the patient's surroundings, that nursing receives so much more attention in recent years than it formerly did. The Cambridge Hospital motto, "Man tends; God mends," expresses concisely the modern conception of the importance of surroundings.

The past 30 years have not been as fruitful in new methods of treatment, as in new methods of diagnosis and of care of surroundings. They have been chiefly remarkable for great modifications of medical and surgical practices in conformity with the general doctrine of asepsis. It is this doctrine, applied every year with greater and greater success, which has given surgery such prodigious extension during the period under consideration, and enabled it to invade successfully the province of medicine. It is fundamentally a doctrine of thorough cleanli-

ness, but surgical cleanliness is an extreme application of the doctrine. In daily life we cannot all be constantly washing our hands in permanganate and then in oxalic acid; but we can all appreciate the hygienic value of cleanliness in our persons, dwellings, vehicles, offices, shops, and factories; and we can all see now the scientific grounds of some practices which have been authoritatively commended to mankind for thousands of years, such as the washing of the hands before eating. After the feats of abdominal surgery the most extraordinary triumph of asepsis has been seen in obstetrics, the perils of childbirth having been apparently reduced within the past 15 years to a small fraction of their former magnitude. We hardly yet realize what an immense benefit to the human race is this single result of the combination of discoveries and inventions which together make asepsis practicable. That the mortality of a lying-in hospital should have been reduced from 33 per cent. to one-third of one per cent. gives but a faint picture of the beneficent results of these discoveries. It is clear, however, that the physician who thoroughly understands and practices asepsis in obstetrical cases has not only more knowledge than his predecessor of 50 years ago, who denied that puerperal fever was contagious, but also much more skill. He must be an adept in practices and manipulations which it never entered into the head of an obstetrician of the year 1860 to conceive of.

It is one effect of aseptic surgery that the treatment of not a few diseases has become much more expensive than it used to be; hence, an inevitable increase in the expenditure of private persons for medical and surgical help, and a significant increase in the average weekly cost of hospital patients. A pain in the bowels, which formerly would have been economically treated by a physician, is now often treated by a surgeon, with a costly operation and several weeks' attendance by expensive nurses. A large saving of human life has, to be sure, resulted, but at inevitable cost for highly skilled labor. It is no inconsiderable attainment for a physician in ordinary practice to have learned when to call in a surgeon or other specialist; and this particular mode of practicing keen observation and sound judgment is comparatively new. We have by no means reached as yet the limit of this substitution of surgical for medical treatment. We may expect to see the knife penetrate safely and effectively many portions of the human frame which the ordinary surgeon is still afraid to touch—such, for instance, as the lungs, and even the heart. It is not yet 25 years since I heard the most eminent surgeon of his day in Boston say, in language too strong to repeat, that in his opinion to attempt ovariectomy was utterly unjustifiable. On every hand we see that the new methods in medicine and surgery demand not only more knowledge and skill in the practitioner, but more insight and sagacity, faculties to whose development nature and elaborate training must both contribute.

I have already said that the dependence on drugs

has much diminished; but during the period which we are considering, the number and variety of therapeutic agents have greatly increased, and there has been active experimentation on the virtues of these multifarious substances. The physician of to-day is solicited by numerous novel specifics made attractive in form and flavor and enthusiastically recommended by simple-minded persons who have tried them in their own bodies, and not infrequently by some physicians who share the common American fondness for a new thing. The multiplicity of these therapeutic novelties makes a new call on the physician for discriminating judgment and rational insistence on a real demonstration of the usefulness of the new agent. Where the physician of 30 years ago had need of this discriminating judgment once, the physician of to-day has need of it a hundred times.

The progress of preventive medicine has imposed on physicians a new class of duties for the discharge of which a high degree of disciplined intelligence is required. They are the only persons in the community who can thoroughly understand and explain the established principles and well-proved practices of preventive medicine; and they are therefore the most effective teachers of these principles and practices. The family physician should be responsible for the care of health even more than for the treatment of disease. It should be his function to give advice about the ways and means of healthy family life—about diet, sleep, fresh air, exercise, and habits of quietness and serene cheerfulness. Physicians must instruct the community in the new methods by which good public water-supplies are provided, tested, and preserved; and they must be equally familiar with the right methods of disposing of sewage; for the disposal of sewage is really a problem of pure water-supply. They must understand the restoration of polluted waters to a safe condition, through filtration, aeration, and dilution. Their judgment should be the final one in families concerning the safety of any given water-supply, and that judgment should be well-founded on a general acquaintance with the subject and on all relevant local information. Physicians should also understand the general principles and most approved practices in ventilation, for ventilation is not only a means of promoting health, but also a means of defense, through dilution, against contagion and other noxious influences. Now, ventilation in both public and private buildings is in itself a very difficult subject and one but recently developed in a practical way. As the mechanical construction of our buildings improves, they become tighter, and as heating contrivances become more economical as regards the proportion of utilized heat to wasted heat they become less valuable as means of ventilation. The roaring fire in the wide chimney of our grandfathers made a great draught; the quiet but effectual coal-stove is an inferior means of ventilation. The more indoor the life of the population, the more important ventilation becomes to the public health. Who but the physician and surgeon can teach disinfection and cleanliness in the treat-

ment of contagious diseases, or impress the population with the need of separating healthy children or adults from those afflicted with tuberculosis or other chronic contagion? Who else is to object to damp cellars filled with organic rubbish, to bad cooking and ill-chosen diet, and to all the manifold interior decorations with which houses are made more unsanitary? Who else can instruct the community in school hygiene, in the imperative need of thorough cleanliness throughout school buildings, of effective ventilation, of good privies, clean books, strong light, and furniture adapted to the sizes of the pupils? Who else is to teach inexperienced mothers that nothing but the most painstaking cleanliness can prevent the nursing-bottle from becoming a regular culture-apparatus for micro-organisms?

There is an infinite amount of teaching to be done in regard to all these subjects, and the medical profession are in many communities the only available teachers. In order to teach effectively, the profession needs to be better trained than it now is in the ordinary methods of influence—trained, that is, to a better power of persuasive writing and speaking, and to the habitual exercise of that authority which should accompany recognized knowledge and disinterestedness.

The public does not use its imagination sufficiently with regard to the future of preventive medicine. Leprosy and smallpox have been measurably conquered; it has proved possible to exclude cholera and yellow fever; and yet the public is not impatient for the conquest of every other infectious and contagious disease, and often not willing to provide the necessary means of deliverance from these evils. Some of the most intelligent communities refuse to establish public disinfecting stations. Bacteriological laboratories are few and far between, when they should be everywhere accessible. Pure water-supplies have diminished typhoid fever in urban populations, but the rural populations, through ignorance, still suffer disproportionately from this preventable scourge. The faith and hope of the medical profession should arouse the public from this lethargy, and redeem it from this destructive ignorance and incredulity; but that faith and hope need to be expressed with power.

By the laws of Massachusetts and many other States, an important duty is placed upon physicians in that they may be called on at any time to testify to the existence of mental disease in persons whom it is proposed to commit to asylums. The first Massachusetts law which recognized that insanity was a disease, the diagnosis of which required medical knowledge, was passed only about 50 years ago, namely, in 1844; and the existing laws concerning the recognition of insanity and the treatment of insane persons are of much later date. Insanity being an increasing evil, physicians have greater and greater need to understand its complex and elusive symptoms, that they may bear with honor the responsibilities the law imposes on them. In regard to all the defective classes—lunatics, criminals,

drunkards, idiots, prostitutes, and paupers—society must be guided to wise palliative and remedial measures by highly educated, sympathetic, and public-spirited physicians. Experience shows that religious or philanthropic enthusiasm cannot deal effectively with these hideous social evils, unless controlled and guided by the physician's knowledge of their causes and sources, and of the preventives and remedies for them. The medical profession is here invading what has been the province of the church, and will need for the work, not only the medical knowledge and skill which the church has never possessed, but the personal consecration and devotion which the church has often commanded.

Thoroughly educated physicians are needed for public sanitary duties. The local boards of health should be able to secure the services of the best local practitioners, and such services should be paid for by the public; for it is unreasonable that the profession which makes its living by tending the sick should be expected to labor gratuitously to prevent sickness. In serving on boards of health physicians would be brought into intimate and influential relations with the other members of these boards—lawyers, engineers, manufacturers, and merchants—and through these boards of mixed membership would exercise on legislatures and the public a much stronger influence than they could exercise by themselves.

State medicine has many objects in view. It aims not only to protect the public health, but also to increase it. In State medicine individualism is impracticable, for it is impossible for the individual to protect himself. The social co-operation, which in our days the State alone can enforce, is needed to promote security against disease and progress toward better average health and longer life. To take all possible precautions against the spread of infectious diseases is simply an act of good citizenship. Nothing but medical supervision will accomplish the objects of State medicine; and there are no agents so effective as physicians to spread through all classes of the community an educated sense of sanitary decency. Only the State can guard against dirty milk, corrupted water-supplies, impure ice, adulterated drugs, spoilt meat and fruit, and filthy and overcrowded tenements. Only the State can enforce the isolation of cases of contagious disease, the suppression of epidemics, and the exclusion of pestilences like cholera and yellow fever. In exercising such control, the State needs every aid which medical experts in chemistry, bacteriology, and comparative pathology can place at its disposal. The medical profession itself hardly recognizes as yet how great promise there is in the further study of the connections between diseases in animals and in man—connections which smallpox, scarlatina in cows, tuberculosis in men and animals, and diphtheria already illustrate. Not even the state—that is, a single state or nation—can deal effectively with such a problem as the suppression of cholera or yellow fever. That is an international

problem. The evils which the social and gregarious instincts of men create, by inducing the modern crowding into cities, must be socially remedied; and the most effective force which society can exert to this end is the influence of the highly trained medical officer. Every physician should be a medical philanthropist and missionary, zealous to disseminate knowledge of public hygiene. The medical profession, therefore, needs not only full knowledge of the history and functions of State medicine, but the intellectual and moral powers which will enable it to serve the State in these matters. These powers—particularly the powers of speech and writing which would give the profession influence with the mass of the population—come through early training and practice under guidance.

The trusted physician sees intimately many classes of society, whether he live in the country or the city. In the city he sees the well-to-do in their houses and the poor at the hospitals and dispensaries. In the country, he visits all the different kinds of people in the town. The experienced physician is familiar with the causes of poverty and misery, and he is equally familiar with the ill effects of wealth and ease unaccompanied by mental and spiritual cultivation. He can recognize the socially normal and the socially abnormal, and distinguish unerringly between them. In the city he knows the evils which result from crowded tenements and dark, ill-ventilated working places; in the country he knows all about the wet cellars in which decaying fruits and vegetables are stored; the bad cooking; and the careless disposition of the household sewage on the surface of the ground near the dwelling. He should be the best adviser on all social defenses against the physical evils which the greed, ignorance, or carelessness of individuals inflicts on the community; on the building of hospitals, large or small, in city or country; and on the training of competent nurses, whether for hospital or family service. The physician should be the chief defender of society against the superstitions which still prevail and the impostures which still thrive. His training being essentially the training of the naturalist, he should be the defender of the community against all forms of unreason. If the physician have the needed persuasive force, no one can defend society so effectually as he against those unreasonable persons who are constantly protesting against dissection, vaccination, and vivisection; for no one can understand so well as the physician the benefits which these processes have conferred upon the human race.

There is another important topic to which the attention of the medical profession has been given spasmodically, but not with the effectiveness which might have been expected—I mean the legislative control of medical practice. So long as diagnosis depended on guessing, or divining, or on a natural insight of which the seer could give no definite account, there may have been some excuse for the absence of a law intended to insure the common people against ignorant physicians; but now that the

means of diagnosis and prevention have become definite, the State may reasonably require every practitioner to know how to use them. The ignorant physician spreads diphtheria and scarlet fever, simply because he cannot recognize them. Now that we have definite means of diagnosis, treatment, and prevention, which only education can give knowledge and command of, it is fair—indeed, it is imperative—that the State should require of all practitioners a competent training. Some progress has been made in this subject during the past 20 years; but much remains to be done.

Lastly the physician needs thorough education that he may hold his own in public estimation with other professional men who undergo a prolonged and vigorous preparatory training. Social power and standing come with recognized cultivation; and public confidence is given to men who are believed to seek truth for truth's sake, holding themselves free from the influence of inherited dogmas, consecrated phrases, and preconceived opinions concerning the desirable results of current inquiries.

I hope I have said enough to satisfy my hearers that the opportunities and potencies of modern medical practice are so new and vast that an ampler education is needed by the practitioner. How is this education to be obtained? The four years' course at the Harvard Medical School, and at all other good medical schools, is completely filled with various instruction and practical exercises. No more can be done by the student in those four years than is done. Undoubtedly all the teaching can be indefinitely improved, and the laboratory processes can be made more economical of time and effort; but no significant additions can be made to the amount of the work done by the students in those years. On the other hand, it is highly inexpedient that the age at which students on the average graduate in medicine should be raised. The young men going out into hospitals and practice are quite old enough already—indeed they are too old, for the earning of a livelihood is too long deferred, as are also marriage and family life. Whither turn, then, to achieve the great improvement in medical education which is absolutely indispensable for the future? We must turn to the period of school and college life,—to the period which extends from the age of 6 to the age of 21. Here it is that the enlarged education required by the physician is to be procured; and here it is that the influence of physicians is needed to improve the course of public education. In the first place, the youth who is to be a physician must use well his schooltime from 6 to 18, and then go through college or scientific school; and in the second place, school, college, and scientific school all need to be improved, so that the naturalist mind may have a fair chance in them. In the grammar-schools and secondary schools of our country much time is wasted through repetitions and reviews, and exaggerations of grammar, arithmetic, and political geography. That time must be saved. Subjects important in the

early training of persons who are to be physicians—such as the elements of natural science—are often omitted, to the injury not only of that class of pupils, but of all the children. In some of the best secondary schools an unreasonable proportion of the time is given to foreign languages; and finally, there is lack of connection between the secondary schools and the colleges and scientific schools, the requirements for admission to the latter not matching the graduation requirements for the former. For the present state of things the medical profession itself is somewhat responsible. So long as medical schools had no requirements for admission, they sanctioned the idea that a young man whose education had been neglected up to his twentieth year could then turn to medicine as a profession, and expect to be well trained for it. So long as American society was in the rough, elementary, pioneering stage, physicians of that crude sort had their place, and a few of them became ultimately competent through the stress of actual practice; but that day is passed; and with it the old attitude of medical schools toward school and college education should become a thing of the past. The medical profession should insist that botany, zoölogy, chemistry, and physics receive due attention in elementary and secondary schools, and that English, both spoken and written, receive much more attention. They should insist that the elective system be so far developed in colleges and scientific schools that in those institutions the intending physician should be able to follow ardently and far the subjects preliminary to his chosen profession, and that the youth who naturally tends to observational subjects should have a fair chance to follow his bent. It is unnecessary to say that the additions made to the school studies, and the freedom of choice in colleges and scientific schools, would be for the advantage of all pupils; for all need at school the natural-science studies, and the developed study of English and of argumentative composition; while all would profit in the higher institutions by the abandonment of prescribed curricula. Physicians should be ready to serve on school committees and boards of trustees, in order to give practical effect to their opinions on this subject. The clerical profession has been long dominant in education; it is high time that physicians took a hand in that great public concern. They should fight at every turn the idea that there is more cultivation to be got from subjects which have no application in daily life than from those which are capable of application. They should urge medical schools to raise their own requirements for admission. It is a great improvement which has lately been wrought in the State of New York, whereby some academic subjects are required as preliminary to medical education. It was a great example which the Johns Hopkins University set us all by demanding a degree for admission to its new medical school. It is a step in the right direction which the Harvard Medical School has just taken in giving notice that in and after the year

1901 a degree in Arts, Philosophy, Science, or Medicine will be demanded for admission to the school. Nothing short of the period from 6 to 25 will hereafter suffice for adequately preparing a young man for medical practice. We want the whole of that period well filled and well used. We want it for the honor and dignity and serviceableness of the profession itself. We want it also for the just furtherance of the work which the community may reasonably expect of the profession.

The medical profession has before it an entrancing prospect of usefulness and honor. It offers to young men the largest opportunities for disinterested, devoted, and heroic service. The times are passed when men had to go to war to give evidence of endurance, or courage, or capacity to think quickly and well under pressure of responsibility and danger. The fields open to the physician and surgeon now give ample scope for these lofty qualities.

The times are past when the Church alone asked men to devote themselves patiently, disinterestedly, and bravely to the service of their fellow-men. The medical profession now exhibits in highest degree these virtues. Our nation sometimes seems tempted to seek in war—that stupid and horrible savagery!—for other greatness than can come from vast natural resources, prosperous industries, and expanding commerce. The pursuits of peace seem to pall for lack of risk and adventure. Would it might turn its energies and its longing for patriotic and heroic emotion into the immense fields of beneficent activity which sanitation, preventive medicine, and comparative medicine offer it! There are spiritual and physical triumphs to be won in these fields infinitely higher than any which war can offer; for they will be triumphs of construction and preservation, not of destruction and ruin. They will be triumphs of good over evil, and of happiness over misery.

Public Libraries and the Dissemination of Disease.—Libraries have repeatedly been accused of spreading disease. A recent communication from a London librarian to the *Westminster Gazette* shows that precautions are adopted in the public libraries both by London and the provinces. The library receives each day a list of the houses in the parish where infectious disease exists. No books, under any circumstances, are issued to readers in the infected houses.

If books have been loaned to dwellers in one of these houses previous to the outbreak of the disease, notice is immediately sent that the books are not to be returned to the library, but retained and delivered to the sanitary authorities, who undertake to collect the volumes without delay and thoroughly disinfect them.

A fine not exceeding £5 is imposed upon borrowers who return to the library books that have been exposed to infection.

OBSERVATIONS ON THE USE OF PERMANGANATE-OF-POTASH IRRIGATIONS IN THE TREATMENT OF THE ACUTE STAGES OF GONORRHEA*

By GEORGE K. SWINBURNE, M.D.

THE widespread belief that this disease in its acute stage is best let alone, unless we use internal medication, and that local treatment during this stage is a prolific source of stricture formation, in spite of many ably written articles to the contrary, prompts the writer to publish some observations made during the past two years where the main reliance in treatment has been upon generous irrigations of the urethra with solutions of permanganate of potash, generally hot, following somewhat the methods recommended by JANET, of Paris.

Having made many trials (extending over long periods of time) of different methods, the first being made with Dr. BREWER in 1888 and 1889 at the Vanderbilt Clinic, and at my own clinic in 1889 and 1890 at the Eastern Dispensary, where we allowed the patients to use urethral injections of bichloride in strength of 1:20000, which was done to imitate as far as possible the hot bichloride retrojections as advocated by BREWER (it being then deemed impracticable, where such large numbers were being treated, to use the retrojection method); then having tried the method recommended by Dr. GUITERAS of injections of nitrate of silver, beginning with weak solution and gradually increasing the strength; then having tired of these methods,—I fell back upon the alkalies and balsams, with the idea of studying their effects, and became completely disgusted with the idea that internal medication could have any possible control of the disease. I was about to start upon a new series of experiments, using hot bichloride by irrigation, inasmuch as the use of retrojections consumes too much time when large numbers are treated, when I came across JANET's article recommending permanganate of potash, and resolved to give this a trial first; as a result this has been practically the only method I have used for the past two years. I have used it in every stage of the disease, in the presence of every possible complication, even during the acute stage of epididymitis, in private as well as dispensary practice, without having any fear of ill results.

Every case has received personal attention, for I have hesitated to put the apparatus in the hands of the patient himself, especially during the acute stage.

Necessarily, in dispensary practice, it has not been possible to carry out the Janet method in all its completeness, which necessitates irrigation, in the beginning, twice a day; nor do I irrigate the posterior urethra until there is evidence, as shown by the two-glass test, that the posterior urethra has been invaded by the inflammatory process. Where, however, the patient has had a previous attack of the disease, I depart from this rule and irrigate the

* Read before the Hospital Graduates' Club, December 19, 1895.

entire urethra. I also do this in cases where the disease has existed over three weeks before coming under my care.

Janet's Method.—In an acute case, Janet's method is as follows: He carries out a series of 14 irrigations (about), twice a day the first few days, then only once, then stops and examines for gonococci. If these are still present, another series of 12 irrigations is instituted; but if they are not found he proceeds by the various methods to see whether a discharge will return or not, and makes further examinations for the germ, etc. In irrigating he begins with a warm solution of a strength 1:4000, and gradually increases to 1:1000, and even 1:500 for the anterior urethra. After 48 hours, or at the fifth irrigation, he forces the fluid into the posterior urethra (the irrigator being placed at a height of about one and one-half meters) by hydrostatic pressure (urethræ differ markedly in the ease with which this may be done), he first cocaineizes the anterior urethra by injecting 10 c.c. of a solution (1:400) of cocaine, using the first half of the fluid in the irrigator for the anterior urethra, the remainder for the posterior. He uses one liter of fluid at each treatment.

Modification of Janet's Method.—I have been obliged, in dispensary work, to depart somewhat from these rules: (1) I could never irrigate oftener than once a day; (2) Sundays and holidays had to be omitted; (3) on account of numbers treated, and the fact that this work was carried on in the midst of the work of a general surgical clinic. I used only half the regulation amount, except with those coming with their first attack in the acute stages. Here I usually used the full quart.

Now as to method of employment, I keep on hand a standard solution of the permanganate, of which 2 dr. contain $3\frac{1}{2}$ grn.; this added to the quart of water, equals about 1:4000, and the strength may be increased accordingly. The irrigator is placed about five feet above the level of the penis, a wide, blunt-ended nozzle is used, connected with irrigator by rubber tubing. The glans penis and prepuce are first irrigated, then the nozzle is alternately placed against the meatus and taken away, thus flushing the anterior urethra; then after one-half the fluid has been used (if it is necessary to irrigate the posterior urethra) the nozzle is placed against the meatus and held till the fluid passes back into the posterior urethra and bladder. The patient then urinates, emptying the bladder. Of course the patient always urinates before treatment is begun; and urinating into two glasses is, roughly, sufficiently accurate in the majority of acute cases to test the progress the patient is making.

In making irrigations, especially in those cases coming to me with a first attack, I use a certain amount of care in irrigating the anterior urethra, in the following way: I grasp the penis about one inch back of the meatus between finger and thumb, exerting gentle but firm pressure upon the urethra, while I wash out thoroughly the front inch; then I

grasp it an inch farther back and wash this out, and so on as far back as possible before allowing the fluid to rush back to the cut-off muscle, and believe that in this way I avoid carrying any particles which may remain in the urethra after urination back farther, and thus perhaps avoid forming a new focus of infection. It was after one case, which had been progressing favorably, developed an epididymitis, unaccountably, that I adopted this method. I may as well say at this point that theoretically, where the meatus is fairly large, I prefer the retrojection method with a small soft catheter inserted inch by inch in irrigating the anterior urethra; but practically, I believe, there is no difference.

The patients always stand during irrigation. This also is to save time; but they have to be carefully watched at first, especially when one is receiving his first irrigation, as he is apt to feel faint. After the first irrigation there is generally no trouble. I make the fluid fairly hot; never so hot, however, that it is uncomfortable, and with each treatment the heat may be slightly increased.

Results.—Now this method has been pursued by me in over 1000 cases of gonorrhea, acute and chronic, in fully 150 cases of gonorrhea complicated by acute epididymitis (not developed while under my treatment), in over 100 cases of seminal vesiculitis (gonorrheal), after each stripping according to the Fuller method. Out of these 1000 cases or more, so far as I know, epididymitis has developed in only 4 cases; of these, 2 had discontinued treatment, one of whom had only been irrigated twice, and disappeared to avail himself of the valuable services of an experienced friend, and returned four weeks later with a beginning epididymitis; the other had been irrigated by me for about a week, when treatment was interrupted by my own illness, and after my return to work I found the patient had been in the hospital with an epididymitis which had come on two weeks after the treatment had been discontinued. These two cases I do not regard as in any way caused by the treatment, but on account of a lack of it.

A third case developed an epididymitis on the tenth day of treatment, but here I was trying a series of cases with injections of silver-nitrate solutions according to the plan recommended by LYONS in the *Medical Record* last spring, and in a few selected cases added this treatment after irrigating with permanganate; and I will say here, as this case does not come in my list, that in seven weeks all signs had disappeared except a stricture at three inches of 26 caliber in a urethra of 35; and, further, that this stricture, almost under irrigations alone, carried on once or twice a week, had disappeared within three months, and the patient was free from all trouble when seen and examined at an interval of three months from the last date.

In one case only (mentioned before in this paper) did epididymitis develop during the course of treatment, and this was somewhat unaccountable; he had been doing well, had had rather a severe type of the

disease, discharge had ceased for several days, when it suddenly started up afresh and was closely followed by the epididymitis. The patient stuck to treatment to the end, but I could never get him to admit any reason for this curious phenomenon, still I have reason to believe that he had transgressed rules laid down. That he himself did not hold the treatment responsible, the fact that he submitted to treat-

draw any conclusions as to the value of any treatment. But these cases (with a first attack) unfortunately are infrequent compared with the immense number of cases that apply for treatment. Then, too, in addition to treatment, they are apt to follow the advice of their numerous experienced friends, or they drift away, or they come late, after lay skill has exhausted its innumerable expedients upon them.

Case No.	Discharge lasted before treatment.	Period of incubation.	Date of treat. when post. urethritis began.	Post. urethritis lasted.	Discomfort from post urethritis.	Blood in second glass.	Left before cured.	Pronounced cured.	Days irrigated.	Days under observation.	Regularity of attendance.	Examined at a later date.
I.	5d.	5d.	3d d.	8 d.	none.	no.	yes.	..	11	18	irreg.	not seen.
II.	2d.	..	o	o	..	..	yes.	..	18	31	irreg.	not seen.
III.	4w.	7d.	from begin.	4 d.	none.	no.	..	yes.	21	35	reg.	O. K. three months later.
IV.	10d.	9d.	12th d.	9 d.	none.	no.	yes.	..	21	28	fair. reg.	not seen.
V.	7d.	..	9th d.	2 d.	none.	no.	yes.	..	16	18	reg.	not seen.
VI.	2d.	7d.	7th d.	7 wk. int'rup.	slight.	no.	..	yes.	42	75	int'rup. 4 wk.; reg.	O. K. three months later.
VII.	2d.	..	o	o	..	..	..	yes.	28	45	reg.	not seen.
VIII.	2d.	5d.	28th d.	5 d.	none.	no.	..	yes.	2 wks. int. 14	50	..	treated f. sem. vesic.; O. K. in six months.
IX.	2w.	..	14th d.	12 d.	none.	no.	yes.	..	21	28	reg.	not seen.
X.	24h.	10d.	o	o	..	..	yes.	..	14	14	reg.	not seen.
XI.	3d.	7d.	o	o	..	..	..	yes.	13 d. 1 wk. int. 17 d.	47	reg.	not seen.
XII.	2d.	7d.	1st d.	2 d.	none.	..	yes.	..	7	14	reg.; left too soon.	not seen.
XIII.	2d.	..	o	o	..	..	..	yes.	23	51	reg.	not seen.
XIV.	3d.	5d.	o	o	..	..	yes.	..	3	3	no disch. on 2d d.; no. gonoc. on 3d d.	This case had an attack 15 years ago.
XV.	1w.	..	o	o	..	..	..	yes.	25	35	reg.	5 months later, O. K.
XVI.	1w.	7d.	o	o	..	..	..	yes.	22	38	reg.	1 month later, O. K.
XVII.	3d.	10d.	fr. beg.	14 d.	consid.	no.	yes.	..	18	25	very severe. reg.	not seen.
XVIII.	3d.	..	6th d.	4 d.	none.	no.	..	yes.	30	33	reg.	not seen.
XIX.	3d.	..	o	o	..	..	..	yes.	8	15	reg.	not seen.
XX.	3d.	5d.	3d d.	10 d.	compl'd.	yes.	..	yes.	28	60	reg.	2 months later, O. K.
XXI.	4d.	..	fr. beg.	11 d.	slight.	no.	yes.	..	24	24	reg.	not seen.
XXII.	24h.	7d.	8th d.	17 d.	slight.	yes.	..	yes.	7 wks.	60	reg.	2 months later, stricture 22.
XXIII.	4d.	5d.	10th d.	3 d.	none.	..	yes.	..	28	28	reg.	2 months later, O. K.
XXIV.	2d.	6d.	6th d.	11 d.	none.	..	yes.	..	19	26	reg.	not seen.
XXV.	4d.	7d.	o	o	..	..	..	yes.	16	23	reg.	2 months later, O. K.
XXVI.	24h.	12d.	o	o	..	..	..	yes.	10	17	reg.	4 months later, O. K.
XXVII.	4d.	7d.	28th d.	14 d.	consid.	..	..	yes.	8 wks.	63	reg.	epididymitis on 28th day.
XXVIII.	4d.	5d.	o	o	..	..	..	yes.	30	40	reg.	not seen.
XXIX.	4d.	7d.	o	o	..	..	..	yes.	19	28	reg.	1 month later, O. K.
XXX.	24h.	5d.	o	o	..	..	..	yes.	21	28	reg.	2 months later, O. K.
XXXI.	2d.	7d.	o	o	..	..	..	yes.	22	36	reg.	1 month later, O. K.
XXXII.	2d.	7d.	o	o	..	..	..	yes.	21	26	reg.	not seen.
XXXIII.	3d.	7d.	3d d.	11 d.	slight.	..	..	yes.	23	32	reg.	not seen.
XXXIV.	3w.	6d.	o	o	..	..	..	yes.	21	40	reg.	married; 1 month later, O. K.; 4 months later, O. K.
XXXV.	24h.	7d.	14th d.	9 d.	none.	..	..	yes.	25	39	reg.	not seen.
XXXVI.	4d.	10d.	o	o	..	..	yes.	..	12	15	gonoc. disap. on 11th d.	not seen.
XXXVII.	24h.	7d.	o	o	..	..	..	yes.	21	28	gonoc. disap. on 17th d.	2 months later, O. K.
XXXVIII.	24h.	7d.	19th d.	13 d.	compl'd.	..	..	yes.	30	45	..	1 month later, O. K.
XXXIX.	24h.	7d.	o	o	..	..	..	yes.	21	60	gonoc. not found after 8th d. of trt.	still under observation.
XL.	2d.	7d.	14th d.	3 d.	none.	..	..	yes.	21	35	..	still under observation.
XLI.	5d.	5d.	o	o	..	..	yes.	..	13	13	..	8 months later, O. K.*
XLII.	2d.	5d.	o	o	..	..	yes.	..	10	10	..	7 months later, O. K.*

* Seen since this paper was read.

ment during the acute stage of his epididymitis is evidence.

Now, in attempting to arrange any series of statistics, it is important to separate those cases having their first attack, and place them in a group by themselves; they should further be subdivided according to the length of time that the discharge has existed before coming under treatment, if we are to

In statistics vaunting some new method this is not done, unfortunately; yet all agree that a urethra that has passed through one attack or more seems to be in some way changed and will stand far different treatment from one passing through its first attack. In fact the trial of a new remedy or new method on one of these cases, and its not infrequent disastrous results, have deterred the profession at

large from meddling with these cases or any cases at all; and an analysis of some published statistics will quickly show that this is true: brilliant successes in cases having had repeated attacks; prolonged and discouraging treatment of those coming with a first attack. This is also one of the reasons that many believe this to be an incurable disease.

In my own work I have only attempted to take careful notes in those cases with a first attack, coming within the first week or so, the condition of the patient being jotted down at the time of examination while under pressure of work, and the notes were never reviewed by me until I came to write this paper two or three days ago.

These notes were begun only last February, after I had been doing this work for over a year. I now regret that I did not do so earlier, but previous note-taking had been unsatisfactory: when I came to look over my cases too many had disappeared for them to be of any value. It is from notes taken since last February, and only cases coming with their *first attack*, that I shall make any analysis.

Of such cases I find notes on 95. Of these, 5 have been thrown out because it was not established that gonococci were present, and 44 disappeared too soon for the notes to be of any value.¹ It is difficult in dispensary work to keep control of a patient until a cure is pronounced: he is apt to leave if he gets worse; he leaves if the discharge stops, or because of many other reasons.

Two cases will serve to prove that some at least are often cured, or consider themselves so. One, not in the 95, came to me when I was beginning the use of this method. He disappeared at the end of two weeks' treatment, and returned 15 months later with what I am inclined to believe to be a second attack. He said he had been all right in the interval; he had not been abstemious during that time; the discharge had stopped at the end of 10 days, and he gave up coming at the end of 14 days, because he thought himself all right. This time he had had a discharge of only 24 hours, with an incubation of four days. A smear showed the presence of gonococci. He promised to remain until I should pronounce him cured. The discharge lasted again 10 days. He was irrigated daily for 21 days, under observation three weeks longer, and pronounced cured. He was seen two months later, and a note made that a faint floating shred in the first glass was examined and no gonococci found.

The second case—one of the above 44 cases—is to-day under treatment, and has been for five days with a second attack. He came to me last July with his first attack, but as he left too soon he is thrown out of the 40 cases, because of incomplete notes. His record shows that he came to me on the third day of the discharge, gonococci were demonstrated, he was irrigated 14 days, discharge ceased on the tenth

day of treatment. After he left he tells me that he was all right, had not abstained from alcoholics or coitus, and the present attack had an incubation of six days. He came within twenty-four hours after he had noted a discharge; gonococci found. This attack has the appearance of being an independent one, and not a lighting up of the old trouble.

Now in the remaining 40 cases of which I have taken notes I find the following facts:

8 came within 24 hours of the appearance of trouble				
10	"	"	48	"
7	"	on	3d	day
11	"	between	4th	and 7th days
2	"	in	2d	week
1	"	in	3d	week
1	"	in	4th	week
—				
40				

The reason I have not more cases coming in the third and fourth weeks is that I took no notes in such cases.

In 21 of these cases I was able to pronounce a cure, either because they remained until I discharged them, or, coming within two or three months for some other trouble, and recognizing them, I have been able to impress upon them the importance of being thoroughly cured, and so have been able to go through the tests and note their condition.

In these 40 cases the longest time of treatment covers a period of 10 weeks. This was Case VI. He was irrigated every day for three weeks (except Sundays), when, on account of business, treatment was interrupted for four weeks. At this time a note shows that there was no discharge, but that post-urethritis was still present. He returned four weeks later and remained under treatment three weeks longer; three months later he was seen by me, and a careful examination proved to my own satisfaction that he was all right.

In Case XXVII, treatment covers nine weeks. This is the case previously cited as having developed an epididymitis.

In Case XXII treatment covers seven weeks. During that period at times he would seem about cured, when the discharge would start up afresh, and be found repeatedly to contain gonococci. He was faithful in coming, and I finally pronounced a cure. Three months later he returned for an examination. I found the urethra 22 at $2\frac{1}{2}$ ins. from meatus, rest of urethra 30, meatus 28, and numerous shreds in the first glass, but careful and repeated examinations revealed no gonococci, but other micro-organisms were found. To-day he is dilated up to 28 and is still under treatment, which I carry on as follows: I irrigate the anterior urethra with a mixture, which has a strength of 1:1500 permanganate and 1:20000 bichloride, then fill the bladder with this mixture and have him retain it; he then lies on the table and I pass the necessary sounds (previously sterilized and lubricated with glycerin). Then he empties his bladder. At present he is somewhat irregular in attendance, there being at times an interval of two weeks, while I request an

¹ Since reading the above paper 2 of these 44 patients have returned to consult for other trouble. In each case close questioning has shown that neither has experienced any difficulty, and each is in perfectly good condition. One of them ceased coming almost as soon as the discharge had ceased; the other had come a few days longer. In each case the urine was perfectly clear, prostate and seminal vesicles normal. They are 41 and 42 in the list.

attendance at least twice a week. He has, however, almost absolutely clear urine, a faint floating shred in the first glass.²

Of the remaining cases the longest covers a period of 39 days, the shortest 3 days. Two were treated 38 days. The average length of treatment covers a period of less than twenty-five days, and when I say treatment I do not mean to cover the period of observation, but the period during which irrigation is employed.

The length of time that the discharge has lasted I cannot give, for this has seldom been noted. It has in some cases disappeared within a few days; in other cases it has repeatedly returned, but it is generally very slight in amount and is not complained of by the patient; and I think that, by directing his attention to the urine in the glass, he finds that the mere presence of a discharge is by no means the whole story, and this brings him under better control. At any rate, the irrigations are kept up long after the disappearance of the discharge, and a routine rule has been to irrigate as long as there was continuous improvement or until the urine contains only floating shreds, these being examined for gonococci; then patient was directed to stop treatment and return in one week, during that time to keep straight, use no alcoholics or malts, and to abstain from coitus, but to return before if anything went wrong.

If he returned (and, unfortunately, this is the period at which most of my cases have disappeared) I then permitted indulgence in fairly copious draughts of beer for another week, but ordered him to abstain from coitus. On his return I always question carefully as to indulgence in coitus, desiring to take advantage of this added fact if I were disobeyed. Unfortunately they usually deny this fact, but generally indulge. The shreds in the urine, if there are any, are examined for gonococci, and if the patient is still well I inject a solution of nitrate of silver $\frac{1}{2}$ grn. to the ounce, and ask him to report in forty-eight hours, or 1:10000 bichloride solution. If I have been able to carry a patient to this point and he proves to be all right, I tell him to report in two or three months. Thus a period of observation may cover a considerable length of time, but the period of real treatment has averaged twenty-five days. (This includes the Sundays, though irrigation is omitted on that day.)

I have tried sometimes to note about when the gonococci disappear, but doing, as I have, much of my work alone, this has been difficult and unsatisfactory. I have in some cases noted their disappearance, only to note that they have again returned. So that examinations are made to establish the diagnosis and at the end to establish the fact of their disappearance. I have removed from this group of cases all those in which the gonococci were not found at the start, and no case has been discharged or marked cured in which I have not made more than one examination.

Posterior Urethritis.—Now as to the recurrence of posterior urethritis, the latest German statistics place it at 80 per cent. In some cases I have noted the disappearance of a discharge, yet a posterior urethritis has supervened and lasted a variable length of time. My method has been to note the condition of the urine as passed in two test-glasses, and to count the slightest cloudiness appearing in the second glass as a sign of a commencing posterior urethritis, no matter at what stage this has appeared (eliminating, of course, the possibility of this cloudiness being due to the presence of phosphates), and the case has gone into the column denoting that posterior urethritis occurred. Some of these cases showed cloudiness in second glass, though giving a history of a discharge lasting only 48 hours before being placed under treatment; these come into the list also to spoil the per cent. Counted in this way, posterior urethritis occurred in 20, or exactly 50 per cent. of the 40 cases noted. I note that posterior urethritis lasted from 24 hours in one case to 7 weeks in another—case No. VI, already mentioned. In a number of cases a period of from three to seven days was the time noted during which the second test-glass was cloudy. Of these 20 cases in five only was there any complaint of discomfort. In three there was blood at the end of micturition, and in these three I modified the treatment at the onset of this symptom. I either changed to a solution of nitrate of silver 1:3000, and irrigated the entire urethra, or, after irrigating the anterior urethra with permanganate, I made a deep instillation of several drops of nitrate-of-silver solution (5 grn. to 1 oz.) with a Keyes syringe. All these cleared within one week, so that as a rule, when posterior urethritis did occur, it was only transitory and left no permanent trouble.

One case which should be in this series, but which was thrown out on account of incomplete notes, had a reinfection of urethra from a small follicle situated on both sides of the meatus, which, on his second return to me, I discovered, and noted that it was discharging pus. I thought of destroying these by opening them into the meatus under cocaine, but, in a conversation with Dr. BREWER on the subject, he told me of a method which he had employed successfully, which was to inject pure carbolic acid from a hypodermic syringe, using a needle the point of which had been filed off square. I tried it in this case, first on one side, then a few days later on the other, with success.

Epididymitis.—As regards epididymitis, it developed in one of these 40 cases, but, as this and one other in another series are the only ones that developed this complication while under treatment, I consider it not one case in 40 or 95, but two cases out of 1000 or more treated by this method, each of which was quite as capable of developing it as these two cases. This case started as a severe one; from the beginning there was marked edema of the entire organ. He came on the 4th day, and the discharge ceased in four days; then, later, the dis-

² For this method, and for the mixture of bichloride and permanganate, I am indebted to an article by Janet: "*Blennorrhagie chronique Chez l'Homme*," in *Ann. d. Mal. d. Org. gén.-urin.* for June, 1895.

charge returned, and on the 10th day of treatment there began to be a posterior urethritis, but by the 21st day all signs had disappeared and treatment was omitted for one week. He returned on the 28th day with a renewal of discharge, and an epididymitis rapidly supervened. I could never get any admission from him that he had committed any indiscretion, although I have my own opinion as regards that; still he continued treatment and was irrigated daily, as I do all cases of epididymitis, even during the height of the trouble. In his case this lasted 10 days and subsided, but the patient continued under treatment three weeks longer. Of course the epididymitis was also treated.

Management of Cases.—Now as to management: the first, second, or third irrigations are apt to be followed by pain, lasting some time. To counteract this, I have the patient lie on the table after irrigation, and inject into the urethra a small syringe-ful of a 1-per-cent. solution of cocaine. This has a happy effect in allaying this pain and also in overcoming or preventing the edema of the urethral mucous membrane and meatus, which often comes on and lasts several hours and causes some concern on the part of the patient. I have never seen a case of so severe a character that I have hesitated to commence treatment immediately. Strength of solution: I always start with a solution of 1:4000. One quart of fluid is used. When only the anterior urethra is irrigated, I use all for that; when the posterior urethra is also irrigated, the first half is used for the anterior and the remainder for the posterior urethra. The strength is increased daily, if the patient can stand it, till a strength of 1:1500 is reached. I seldom use stronger than this; there has never seemed to be any necessity. JANET uses up to 1:1000, and for the anterior urethra even 1:500. When I begin on the posterior urethra, I go back to 1:4000, and sometimes am obliged to use only this strength (posteriorly) for some time before being able to make it stronger. I start with a solution warm to the hand and increase the heat daily.

When necessary to irrigate the posterior urethra by allowing the pressure to act gradually against the cut-off muscle, the fluid will insinuate itself into the posterior urethra; then, too, the patient quickly learns to relax, as in making the attempt to urinate. At any rate, in the majority of cases this presents but little difficulty. Sometimes cocainization of anterior urethra, using a 1-per-cent. solution, will be of assistance.

I very seldom prescribe a drug; sometimes salol in 10-grn. powders three times daily, sometimes mixt. rhei et soda for a coated tongue, or cascara for the bowels. I never restrict the diet, but advise milk and seltzer in liberal quantities, and of course forbid malt and alcoholic drinks. I have never known a case of gonorrheal rheumatism to occur during treatment.

This treatment, in the great majority of instances, is given to cases where work is often laborious,

often irritating in itself to these organs, as machine operators. Often they snatch their dinner-hour to come for treatment. Yet with this method, crude as it has necessarily been, the results have been far better than with methods previously tried.

While I do not claim a cure in all these cases, yet I do claim for this method:

1. Marked lessening of discharge—so much so that it ceases to engage the patient's attention.
2. A shortening of the course of the disease.
3. Relief from the many troublesome symptoms so often noted in the course of the disease. I almost never hear a patient complain of chordee.
4. Far fewer chronic cases.
5. Fewer cases followed by stricture.
6. Fewer cases where instrumentation is required.
7. Fewer cases of posterior urethritis.
8. Fewer cases of epididymitis.
9. Fewer cases having secondary invasions of the mucous membrane from other microbes.
10. A larger proportion of complete cures than with any previous method with which I am acquainted.

New York; 48 East Twenty-sixth street.

[For discussion, see page 159.]

INTESTINAL INDIGESTION; ITS DIETETIC AND RATIONAL TREATMENT *

By WILLIAM HENRY PORTER, M.D.

Professor of General Medicine and Pathology in the New York Post-graduate Medical School and Hospital, etc.

THIS subject has been chosen because there is very little attention paid to the discussion and treatment of intestinal indigestion in our modern works upon medicine, and also for the reason that the malnutrition consequent upon intestinal indigestion is largely responsible for almost every disease that occurs in the human organism. In many textbooks this subject is entirely ignored, and at best it is only given a passing notice. In one of the recent and standard works upon the theory and practice of medicine, eleven lines only are devoted to this important problem.

To perfectly understand intestinal indigestion necessitates a clear conception of the chemical composition of the common food-stuffs and the transmutation processes that they must undergo before they can be absorbed and assimilated. This accomplished, the abnormal is quickly and accurately detected.

Briefly stated, all food-stuffs when minutely studied chemically are found to be composed of three distinct classes of compounds.

First, the inorganic substances, or those which enter the system under their own form, pass through unchanged, and come out in the same shape that they entered. They assist the economy physically rather than by chemical activity.

Second, the carbohydrate and hydrocarbon compounds, such as the starches, sugars, and fats. All

* Read before the eighty-second annual meeting of the Vermont State Medical Society, convened at Burlington, October 10, 1895.

of this group act primarily through chemical action, being oxidized into carbon dioxide and water with the production of heat.

Third, the proteids, of which there are two grand classes: the vegetable proteids, or those existing in a polymeric state, and the animal proteids, which are in the form of single molecules. Out of this class alone can all the proteid structures of the body be formed, either by a process of isomeric transmutation or by physical anabolism.

It matters little how complex the meal, the starches and sugars of all kinds have to be transmuted in part by the ferment ptyalin, but chiefly by the amylpsin, in the intestinal canal into a definite molecular form called glucose.

This accomplished, certain epithelial cells lining the small intestines have for their special function the absorption of this particular molecular form, which we call glucose, into their protoplasmic structure. In the substance of the cell, the molecule is isomerically transformed, so that when it is discharged, as it is eventually, into the entero-hepatic circulation, it no longer responds to the common tests for glucose. From the entero-hepatic blood this carbohydrate compound passes into the substance of the hepatic cells, together with active oxygen brought to the liver by the oxyhemoglobin. Within the hepatic cells the oxygen attacks this compound and oxidizes it into carbon dioxide and water—as illustrated in the diagram—with the production of heat equivalent to 1657 kilogram-meters of work for each gramme of the carbohydrate thus consumed.

Thus this oxidation process with its heat production becomes one of the prime factors in maintaining nerve action, and, by being applied to the peripheral nerve endings, is, through the centripetal nerves, brought into direct relation with the central nervous system. It is by this constant heat production in the glandular organs of the body that nerve action is set in motion and maintained in action. Through this reflected nerve impulse from the periphery to the cerebral nervous system, and from the center back to all parts of the animal economy, a harmonious balance of activity is developed and sustained throughout the whole system. All nerve action, therefore, takes its origin in the oxidation processes which are constantly occurring in the epithelial cells which constitute the coating of the body. These surface cells, when bunched together, as they are in the liver and the salivary, pancreatic, and renal glands, etc., are found to be the chief oxidizing zones of the body.

The animal and vegetable fats, like the starches and sugars, are transmuted chiefly in the alimentary canal by the action of the ferment bodies found in the pancreatic, biliary, and intestinal secretions.

The animal fat is transmuted in part into a fine emulsion, and in part into its components, a fatty acid and glycerin, the former joining with a soda compound to form a soap. The emulsified fat is drawn into the protoplasm of those epithelial cells

which have for their particular function the taking up of fat. From the substance of these cells the fat-globules are discharged into the underlying lymphatics in the villi that support the epithelial cells. From this terminal lymphatic, which is a slight bulbous expansion ensheathed with muscle fibers, the fat is driven on to the deeper lymphatics, on through the thoracic duct, and finally enters the blood-stream at the point of origin of the left brachio-cephalic vein. Having gained access to the blood-stream at this point, the fat passes on with the blood to the right heart, through this organ to the lungs. From the pulmonary capillaries the fat appears to be taken up, together with active oxygen, into the epithelial cells that line the air-sacs, and, by a process of oxidation, the fat is here converted into carbon dioxide and water, with the production of heat. Thus, for each gramme of fat consumed in this manner in the lungs, the heat equivalent 3841 kilogram-meters of heat is produced. This heat stimulates the peripheral nerve-endings in the lungs with the same concomitant phenomena as were described

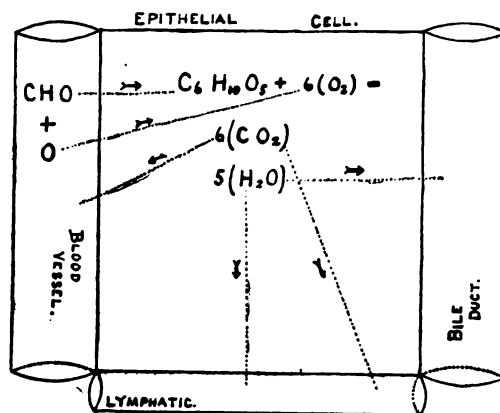


FIG. 1—C H O OXIDATION

Schematic drawing illustrating the oxidation process in the protoplasm of the epithelial cells.

in connection with the heat production in the liver by the oxidation of the carbohydrate compound.

The soap and glycerin produced by the action of the ferment steapsin are a part of the laxative mixture which the system must produce each day to keep the bowels in motion and prevent constipation. The vegetable fats being less perfectly emulsified and more easily decomposed, are more likely to be cathartic in action and poor heat-producers.

The proteids, or true tissue builders, all enter the alimentary canal in the form of an alkali-albumin, either in the polymeric state, as found in the vegetable kingdom, or the "monomeric" form common to animal fluids and solids. In the alimentary canal the polymeric form must first be transmuted into the simpler form. This accomplished, the alkali-albumin is acted upon by the hydrochloric acid, and isomerically transmuted into acid-albumin, after which it is further acted upon by the ferment body pepsin and transmuted into a series of albumoses, and finally into a true peptone, which is the only form in which a proteid can be taken up by the epithelial cells of the alimentary canal. The larger percentage of the

proteids in the food-stuffs, however, passes through the cavity of the stomach into the intestinal canal unpeptonized. Thus we find that the function of the stomach is chiefly a storage and macerating tank, the major portion of the proteids, as well as the starches, sugars, and fats being transmuted in the intestinal canal. The ferment body trypsin, secreted by the pancreatic gland, together with the protolytic ferments of the bile and intestinal secretions, complete the peptonization of the proteids. When they have all been converted into this particular form in which the proteid can be drawn into the protoplasmic substance of the epithelial cells, they are absorbed by these special cells. After the peptone has gained access to the protoplasm of these cells, of which there are three distinct sets as regards their function, it is further isomerically transmuted. One set of cells discharges the contained proteid into the entero-hepatic blood-stream as serum-albumin, another as serum-globulin, and a third as fibrinogen.

If the transmuting function of these cells is over-taxed, the peptone may be discharged as such into

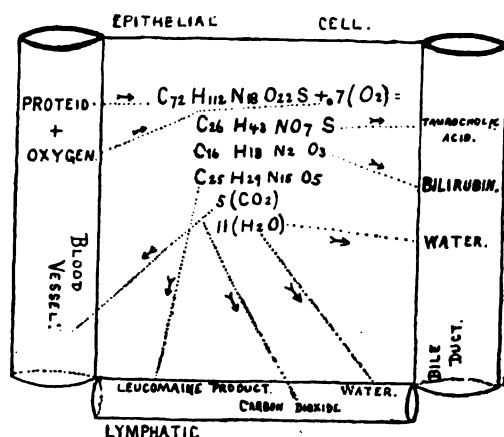


FIG. II—PROTEID OXIDATION
Schematic drawing illustrating the oxidation process in the protoplasm of the epithelial cell of the liver.

the entero-hepatic blood. The peptone being a toxic form of proteid, when it reaches the hepatic gland, the epithelial cells of the liver take up the peptone and transmute it into a non-toxic form, in a manner similar to that of the cells of the intestinal canal when they are performing their function normally, thus preventing general toxemia from the peptones.

After the proteid body has reached the entero-hepatic blood-stream in the normal manner and has been properly transformed, it passes on, in one of those three forms, from structure to structure, being changed from one form to another, thus giving a different physical character and function to the various organs and structures of the body without undergoing any decided chemical decomposition, a small portion being thus transmuted to form the ferment bodies secreted by the glandular organs of the alimentary canal.

When the proteid has served its purpose to the body, it is again taken up into the protoplasm of the epithelial cells covering the body, chiefly into the cells which constitute the excretory organs, such as

the liver and kidneys. At the same time that the proteid enters the cell, oxygen is introduced from the oxyhemoglobin of the blood into the protoplasm. This results in an active chemical decomposition, or oxidation, of the proteid with the forma-

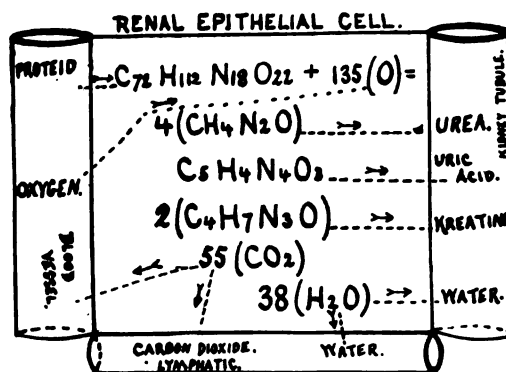


FIG. III
Oxidation of proteid molecule in renal epithelium into urea, uric acid etc. (Schematically represented.)

tion of the katabolic products, which are common to the excreta, as illustrated by Figs. II, III and IV. Each gramme of proteid oxidized in the body yields the heat equivalent of 1812 kilogram-meters.

With this understanding of the composition and utilization of the food-stuffs, if the food-supply is properly adjusted so that the constructive material is available and sufficient for the daily demands of the system, and if, at the same time, the heat-producing substances are of the right kind and quality, they can all be utilized perfectly without exhausting the oxygenating capacity of the system. In fact nature has allowed quite a wide margin for deviation. Were it not for this, it would be impossible to secure anything like a fair standard of health.

When these laws are observed and the food-stuffs kept well within the prescribed limits, the digestive functions will be perfectly performed, assimilation thoroughly maintained, and normal physiological phenomena only will be observed. Under these conditions the system as a whole will possess the highest possible degree of resistance against all dis-

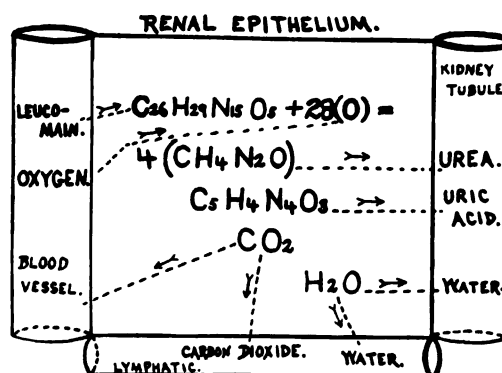


FIG. IV
Oxidation of proteid derivative molecule in renal epithelium into urea, uric acid. (Schematically represented.)

ease processes. Lower this standard and the system is easily attacked by infections. Thus we see how it is that intestinal indigestion is a prime factor in producing all forms of disease.

The chief causes of intestinal indigestion are of

two kinds: First, the presence of micro-organisms, and the fermentative changes produced in the food-stuffs in the alimentary canal by their presence; second, the taking of considerably more food than can be digested and perfectly oxidized, and also the taking of food of faulty composition. To these may be added, not as direct causes, but as conditions which influence perceptibly the perfection of digestion and assimilation, the kind of work which the individual has to perform, the lack of outdoor exercise, the peculiar conditions of the nervous composition, the mental state, climatic influences, etc., all of which play their part in influencing the digestive phenomena.

The micro-organisms are apt to excite the more pronounced lesions of the alimentary canal, such as true inflammatory conditions. Still, it must be admitted that most of the abnormal fermentative processes that occur in the food-stuffs in the alimentary canal have their origin in some form of micro-organism. While micro-organisms are always present in the alimentary canal, the normal secretions and digestive processes appear to be sufficient to prevent any deleterious influence from their presence, or any disturbance in the normal digestive phenomena. The most important factor, then, in the production of intestinal indigestion is the intake of too much food, and especially that which is faulty in composition (as the substituting of cows' milk for human milk in infant-feeding), or the use of vegetable or starchy foods in young children before the full development of the digestive organs.

The milk-sugar, the fat, and the proteids contained in the milk of the mother are in that condition in which the digestive apparatus of the infant can most easily transmute them into an absorbable state, while the chemical composition and the proportions of the sugar, fat, and proteid in cows' milk are differently arranged, consequently not available in its natural state for perfect results in infant-feeding. Consequently the use of cows' milk alone is prone to produce digestive disturbances and malnutrition. When properly diluted and modified by the addition of other substances, such as egg and barley-water, cows' milk can be made available for infant-feeding. The mother's milk, when of perfect composition, yields the highest degree of nutrition with the least tax upon the digestive powers of the child. All deviations from this fixed plan of Nature tends to lower the nutritive vitality, and ultimately excites intestinal indigestion.

In the adult, over-indulgence in food may be sufficient to cause intestinal indigestion. But when this is coupled with faulty composition a decided disturbance in the digestive process must follow sooner or later, depending upon the inherent chemical activity of the organism.

From a careful study of the normal process of digestion, it becomes apparent that a well-regulated mixed diet is the most desirable at all times, except in early infancy, old age, and in some diseased conditions, when a purely milk diet is the most desir-

able. A well-regulated mixed diet is one that contains the mineral ingredients common to the animal organism, the starches or sugars, the fats, and the proteids all so proportioned that the requisite amount of heat will be produced by the carbohydrates along the line of the entero-hepatic system and by the fats in the lungs, and the full amount of constructive material supplied.

The animal and vegetable kingdoms both contain these three classes of substances. No one of them is perfectly adjusted, however; for the best results, although milk, so far as composition is concerned, comes very close to perfection. But milk, like every other single article of food, has its defects. Therefore to secure the most perfect results the animal and vegetable compounds in some form should be blended together in outlining a well-regulated mixed diet.

The vegetables, taken alone, contain an excess of the starches and sugars, and comparatively little fat. Their contained proteid, which often exceeds in percentage that found in the animal kingdom, is less available for assimilation than the latter, because owing to its highly polymeric structure it is less readily split up to meet the requirements of the organism and is much more difficult to convert into a peptone. In fact, the task is so great that from 15 to 60 per cent. passes through the alimentary tract without being so transformed, while with the animal proteids the loss is only from 2 to 10 per cent.

Therefore, when living upon an exclusive vegetable diet a large bulk of unavailable material must be taken into the alimentary canal to secure the absorption of the requisite amount of proteid substance. With this there is also an excessive amount of starch and sugar, and a deficient quantity of fat. If the individual has been blessed with a strong digestive apparatus, and can lead a comparatively leisurely and out-of-door life, many years may pass without material damage to the economy upon a purely vegetable diet. If, on the other hand, adverse conditions are imposed, as they frequently are with such a diet, intestinal indigestion and various forms of malnutrition will speedily follow.

The liberal use of fruits is another very potent factor in exciting abnormal fermentation of the food-stuffs in the alimentary tract. It is the irritation that arises from this disturbed action in the transmutations of the food-stuffs that makes them laxative in their nature. Many of the fruits in the market are plucked before they have had an opportunity to fully ripen; in their raw state they are often laden with micro-organisms, and at best are in a state of partial decomposition when they are introduced into the alimentary canal. Therefore, they should be avoided as laxative agents.

A meat diet alone is defective in that it does not contain any glucose compound; but when the term "animal diet" is used in its true meaning it includes milk, eggs, butter, cheese, and all the products that are obtainable from an animal source. Under these conditions, all the three classes of chemical compounds are fully represented in an animal diet,

and can be secured easily in the required proportion.

On the other hand, when the term vegetable diet is used accurately it excludes the use of butter, lard, eggs, and milk, and every animal product, even in the process of cooking. When this is done it is found to be absolutely impossible to construct an exclusive vegetable diet in which the three classes of chemical compounds are properly proportioned. A near approach to perfection in composition, even if such were possible, would still necessitate the introduction and transmission through the alimentary canal of a large amount of waste and irritating material, owing to the great indigestibility of the vegetable proteids. Consequently, sooner or later, the system must suffer. It is for these reasons that the excessive use of the vegetable compounds and fruits is so prone to excite intestinal indigestion. In a similar manner an animal diet may result in intestinal indigestion, not so much from faulty composition as by the too liberal use of the animal food-stuffs.

These, then, are the essential conditions or factors that tend to, and do actually, cause the innumerable cases of intestinal indigestion which are constantly presenting themselves for treatment.

The clinical feature presented in connection with intestinal indigestion is an exceedingly complex and varied one. The symptoms may be acute or chronic in their nature. It is the chronic class, however, that are the most important and the most varied in symptomatology.

In the purely acute intestinal indigestion there are no primary gastric symptoms. The food taken has passed through the stomach without exciting gastric irritation. When the food-stuffs reach the intestinal tract, some two or three hours after the last meal, or even at a still later period, an abnormal fermentation is developed. Instead of the normal transmutation products of digestion, which give rise to no perceptible symptoms, abnormal products are developed, some of which are of a gaseous nature and cause considerable distention of the intestine, thus expanding the intraperitoneal cavity, and in some instances giving rise to actual and severe pain. This is especially true when the transverse colon becomes distended and crowded upward behind the stomach and in front of the vertebral column. When this is the case, undue pressure is brought to bear upon the solar plexus, which may cause an intense pain located at the pit of the stomach, or the pain may be more or less diffused throughout the abdomen. In other instances the distention simply causes a sensation of intense discomfort. In either case the distress continues until the gases are absorbed or discharged from the alimentary canal by being passed through the rectum and anus, or by being regurgitated into the stomach, from which they are belched up and discharged *per os*. This localized pain and belching of gas often cause the false impression that the stomach is at fault. The distention of the abdominal cavity often crowds up the diaphragm, which, together with the reflex disturbance in the nervous system, causes embarrassed re-

spiratory action, and a rapid and irregular heart action.

At the same time that the gas is formed, or even without much gas formation, toxic products, or ptomaines, are produced in the alimentary canal. These, when absorbed into the circulation, together with the peripheral irritation of the nerves distributed to the alimentary canal, cause marked constitutional symptoms and reflex nerve phenomena. The individual may have severe head-, heart-, and back-ache, and a sensation throughout the whole system as if he were under the influence of some toxic agent. There may be rise in temperature and a scanty elimination of urine. All these symptoms will rapidly disappear after free action of the bowels obtained through a mercurial; and what simulated strongly the beginning of an acute infectious disease will prove to be simply a case of intestinal indigestion, the normal state rapidly taking the place of the previously abnormal condition.

In the chronic cases it is much more difficult to exclude the stomach. In fact, in many instances it is impossible, because the long-continued imperfect intestinal indigestion has caused defective action on the part of the liver, pancreas, and all the organs which are concerned in digestion. A state of general malnutrition has been established, and the stomach has become weak and irritable in consequence. In other instances a primary gastric disturbance will lead to intestinal indigestion.

A careful study into the history usually shows that the stomach is not primarily at fault. The meals cause no primary disturbance or discomfort. There is no pain or vomiting upon taking food, the individual affected often declaring that he can eat everything, and that nothing disagrees with him. Yet these same individuals will complain of great discomfort in the abdomen, coming at varying times after taking a meal. The intestines become greatly distended with gas, and the victims often experience intense attacks of pain, relief coming, after an hour or two of acute distress, by the regurgitation of the gas back into the stomach, from which it is finally belched up and discharged *per os*. Observing such cases closely, the tongue is found to be soft and flabby, often showing the deep imprints of the teeth along its margins. The dorsal aspect is more or less heavily coated with a dirty, brown fur. The conjunctivæ and mucous membranes in general are pale, and show a decidedly anemic state of the blood. Instead of the clear and ruddy complexion indicative of perfect nutrition, the skin has a dull, muddy appearance—one hard to express in words, but quickly appreciated by the well-trained eye. The sclera and conjunctiva are more or less tinged yellow, showing that the function of the liver is imperfectly performed. Depending upon the character of the faulty action of the liver there will be defective bile secretion of two kinds. The bile may be decreased both as regards quantity and quality. When this is the case, obstinate constipation is the rule. When the quality of the bile is altered, rather than the quantity diminished, it is

often unduly irritating to the intestinal mucous membrane. This, together with the irritating products resulting from the abnormal fermentation of the food-stuffs contained in the alimentary tract, will, as a rule, produce a diarrhea. The diarrheal discharges often contain more or less mucus, without any inflammatory action in the intestinal canal. These discharges are also very irritating, and often produce considerable pain and tenesmus in the lower bowel and anus. The urine is apt to be scanty, high colored, and superacid. The elimination of urine is decreased, and the output of uric acid is abnormally large. The bile salts and pigments are usually found in such samples. Oxalic and lactic acids, albumin, and glucose may be found in some of the more aggravated cases. This superacid condition of the urine, together with the consequent malnutrition dependent upon the long-continued intestinal indigestion, causes an unhealthy condition of the mucous membrane lining the genito-urinary tract, with a hyperesthetic condition of the nerves which are distributed to this canal. The over-acid urine now acts as a constant irritant to this supersensitive membrane, thus causing considerable vesical irritation, painful and spasmodic action on the part of the bladder similar to what occurs in connection with a true cystitis. There is frequent and painful micturition. It is often for these symptoms that the physician is first consulted, and the poor victim is vigorously treated for the local condition, while the true cause of all the trouble passes unrecognized and untreated. This continued absorption of toxic compounds from the alimentary tract, together with the reflex nervous irritation, keeps the liver continually overtaxed. The central nervous system is poorly nourished and unduly irritated. As a necessary sequence, we have a large and varied train of nervous manifestations. There may be: intense headache, continuous or intermittent in character; mild or severe neuralgic attacks confined to single nerve trunks, or multiple in distribution, simulating in some instances a rheumatic attack. There may be insomnia, or a strong tendency to suicidal mania. There may be the opposite, or a stupid, sleepy condition, almost reaching semi-coma. In other instances all the symptoms common to the most aggravated neurasthenia are directly traceable to the prolonged intestinal indigestion, abnormal fermentation, and toxic infection.

All the non-parasitic skin affections are, in a large measure, only the symptoms of intestinal indigestion, and not independent disease. Thus we find the phenomena of intestinal indigestion presented in one great complex of symptoms, which are often misleading, and, by their local intensity at one point or another, often lead to absolute errors in diagnosis, followed by unsatisfactory results from the best efforts in the line of treatment. Accuracy in diagnosis in these cases can only be secured by a full comprehension of the physiological laws which govern the processes of digestion and assimilation by a

careful study of the patient's habits, and of the method of the development of the symptoms, so that effects are not mistaken for causes.

The prognosis in these cases is good if they are recognized early and carefully treated upon a physiological and rational dietetic and therapeutic basis. The prognosis is less favorable when they have been allowed to go on for years, until some of the secondary effects become in themselves almost diseased processes. Then it becomes, in some instances, almost impossible to effect a cure.

The chief line of treatment to be employed in combating intestinal indigestion consists in regulating the diet in accordance with the well-known physiological laws that govern animal life. The physician must be thoroughly conversant with the chemical composition and possibilities of the various food-stuffs. A careful study must be made of each case separately and every idiosyncrasy for or against all food products accurately noted. The urine must be carefully examined, not so much for albumin and glucose, as to determine the comparative output of urea and uric acid, and also to ascertain what other forms of incomplete katabolins may be present in the renal secretion. This accomplished, the diet must be regulated absolutely, both as regards quantity and composition. The particular kind of food must be prescribed with just as much precision as the medicaments that are used. At the same time the urine must be examined frequently and the exact modifications in the elimination of the katabolic products carefully noted. When this is done systematically, the exact changes in the system can be determined accurately from day to day.

In prescribing a special diet one principle should always be kept in mind, which is that a well-adjusted mixed diet, when it can be perfectly digested, is the height of perfection. It will secure the most complete transmutation of the food-stuffs, and in consequence absorption and assimilation will reach the highest standard, and perfect health will be established.

In almost every instance of intestinal indigestion the mixing of the various kinds of food-stuffs, as is commonly done, will not be tolerated by the enfeebled and already defective digestive apparatus. So long as this plan is pursued the case will not improve. In all cases of intestinal indigestion, from the mildest to the most intense type, it is absolutely necessary to limit the diet to a greater or less extent, both as regards quantity and the kind of food-stuffs taken. In many instances it may be necessary to limit the diet to a few articles of food, as milk, barley-gruel, or broths; very limited amounts, so much so that, at times, the patient may even lose flesh, while the defective digestive function is being slowly but surely re-established. The fancy of the patient must not be considered, but that form of diet must be chosen which will be most effectually digested and yield the largest amount of nutrition. It may be wise at times to take out in a large measure the fat or the sugar from milk. This can be accomplished

by ordering an exclusive skimmed-milk or butter-milk diet, or, on the other hand, a diet of kumyss or matzoon, the former taking out the fat and the latter the sugar. When any one of these limited plans of dieting is resorted to, the heat production necessary to keep the nervous mechanism fully in action falls to too low an ebb. When this is the case, a little alcohol must be added, as it can be oxidized and produce heat without expending any digestive energy, thus making up in a measure for the defective heat production. In other instances the plain-milk diet will accomplish the best results. This is especially so when the milk is taken warm, or with a little limewater, barley-water, or eggwater added. Other cases will do better by excluding milk in any form, and limiting the diet to broths, gruels, eggs, etc.

An important point, which must be kept always in mind when a patient is placed upon an exclusive animal diet of any kind, is the well-known chemical fact that all animal food-stuffs contain a very low percentage of the nucleo-albumin—not enough to produce the hemoglobin and lecithin as rapidly as they are decomposed in the animal economy. This being the case, even if the subject is not already anemic, there is a tendency for them to become so upon an exclusive animal diet. Consequently some hemoglobin-forming compound must be continuously administered to supply the deficiency. As the vegetable class of food-stuffs contain a large percentage of the nucleo-albumin, it should be our aim to introduce some form of vegetable compound in limited amount as speedily as the digestive system will tolerate their presence without exciting undue fermentation. By so doing we supply most effectually the natural and only compound so far known to physiological chemistry out of which the physiological economy can easily and rapidly increase the hemoglobin and overcome the anemia. Many of the succulent fruits and green vegetables contain the largest percentage of this nucleo-albumin. When they can be tolerated, they are valuable for this purpose; but, as a rule, they tend to excite so much abnormal fermentation of the food-stuffs in the alimentary canal that they must be excluded absolutely. The vegetable substances that furnish a full supply of nucleo-albumin without abnormal fermentation are barley, rice, wheat, and rye; barley and rye being especially valuable on account of the high percentage of the nucleo-albumin.

The mixed diet which most effectually meets the foregoing demands, as soon as it can be tolerated, is one composed of milk, eggs, meat, and toast, or stale bread and butter. Under the heading of meat is included fish of all kinds, game, and poultry. Beef and mutton are taken, however, as the standard from which all the other forms of meat are calculated. If one particular form of meat cannot be tolerated, another kind must be substituted. In like manner, if milk or eggs cannot be utilized, some other form of food-stuff must be substituted. The same rule holds true in the selection of the vegetable sub-

stances. When these details are all observed carefully, a well-regulated mixed diet can usually be secured—one that will furnish the requisite amount of all the chemical substances that are required to sustain the animal economy and still keep well within the limits of the oxygenating capacity.

The medicinal treatment of intestinal indigestion consists in the use of a little dilute hydrochloric acid, either alone or in combination with some pepsin, preferably alone, to augment the transmuting or peptonization of the proteids in the stomach. This accomplished, the amount of work imposed upon the intestinal digestive function is reduced to the minimum. Transmutation of the food-stuffs in the intestine can be greatly augmented by the use of a few grains of inspissated ox-gall and pancreatic extract three times daily before eating. The undue fermentation is also checked in part by these substances. To this may be added animal charcoal, resorcin, salicylic acid, naphthalin, phenacetine, or any one of the numerous intestinal antiseptics, so called, that may suit the fancy of the prescriber. None of them will produce any profound and startling results, but they assist in a measure to subdue the abnormal fermentation.

When the liver is performing its function abnormally, and the tissues are stained with bile pigment, a mercurial of some form is in order, and is always followed by an improvement in the general and the local condition.

When constipation is a prominent symptom it must be overcome by some laxative agent, which acts upon the normal plan of nature.

Caffeine and strychnine are valuable agents in intensifying nerve innervation. They also augment the intestinal circulation and cause a more rapid and equable distribution of the blood throughout the body.

New York; 1674 Broadway.

Twelfth International Congress of Medicine.—With the authorization of His Majesty the Emperor of Russia, the Twelfth International Congress of Medicine will be held at Moscow on the 19th–26th of August, 1897, under the patronage of His Imperial Highness the Grand Duke Sergius Alexandrowitch.

Disinfection of the Mouth in Scarlatina.—At the Société des Hôpitaux, in Paris, M. Lemoine recently advanced the theory that the period of contagion in scarlatina is at the beginning rather than at the close of the disease.

He regards the secretions of the mouth and pharynx as the dangerous elements rather than the desquamating epithelium, and considers that the disinfection of these cavities should take first rank among prophylactic measures, and that the period of isolation to which cases of scarlatina are at present subjected should be considerably shortened.

This view is important, in that other eruptive diseases, as measles and smallpox, may perhaps be transmitted by the same means.

Until the pathology of these diseases is better known, it seems rational treatment to disinfect the mouth and pharynx, thus possibly rendering a service both to the patient and to the attendants.

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WILLIAM HENRY PORTER, M.D.

ASSOCIATE EDITOR

EGBERT H. GRANDIN, M.D.

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THE attention of our readers is called to the complete report of the meeting of the New York State Medical Society, which was held at Albany, on Tuesday, Wednesday, and Thursday of this week.

Especially do we direct the consideration of the profession to President Eliot's masterly address upon the important topic of higher medical education, which the BULLETIN is in a position to present in full under "Original Contributions."

AT the meeting of the County Medical Association, held Monday evening, the 20th of January, Dr. JOSEPH E. JANVRIN was elected president. This prosperous organization, since the time had arrived when in the opinion of the majority of the members rotation in office should become the rule, is to be congratulated in its choice, for in honoring Dr. JANVRIN it has unquestionably honored itself.

ON the evening of the 23d of January a complimentary dinner was given Dr. JOHN BYRNE, of Brooklyn, by the Gynecological Society of that city. Brooklyn has the happy faculty of testifying after this fashion to the esteem in which it holds those of the medical fraternity who, after years of service well rendered, are beginning to lessen the burden of the yoke in order that their

remaining years may be spent in that *otium cum dignitate* which it is the too infrequent lot of the medical man ever to attain. The guest of the evening is one whose name is a household one in this country, because of the many valuable contributions he has rendered to science; and not the least of these is the proof he has given in his elaborate monographs of the fact that cancer of the uterus, when persistently treated by the galvano-cautery, seems to lose much of its virulence, as testify the scores of cases Dr. BYRNE records of non-recurrence after the lapse of many years. Indeed, the statistics published by Dr. BYRNE are better from the standpoint of even ultimate cure—if such a term may be used in connection with cancer of the uterus at all—than are yielded by any other operative method, including even total extirpation. The years of labor spent by Dr. BYRNE in the cause of humanity, the reputation which his individual efforts have secured for American gynecology, call for comment from the medical press, and the BULLETIN desires to be the first in the field in extending them.

THE meeting of the Medical Society of the State of New York, held on January 28, 29, 30, was in every respect a notable one. Particularly was this the case in that more time was granted scientific discussion than has been the custom. The papers selected by the Committee on Arrangements and those secured by Dr. ROSWELL PARK, this year's presiding officer, compare more than favorably with those read in the past or those presented to other scientific bodies. Too often the criticism has been made that entirely too much time is given by this society to the settlement of matters which partake largely of medical politics, to the detriment of scientific purposes, which after all constitute the real reason for the existence of the society. This year forms a marked exception. All portions of the State were well represented by representative men; and eagerness in debate, of a terse, scientific character, was the rule. The different specialties into which medicine has become subdivided received, as far as feasible, adequate recognition.

Altogether, the State of New York has reason to be proud of its representative medical bodies. It has been amply proven that there exists room for two, since the State Association has become well known for good scientific work accomplished. Thus the old saying that out of harm good may come has, in a sense, been verified. That which a decade ago seemed an irreparable injury to the cause of medicine in this State (we refer to the wrangle over the

code question) has in reality stimulated scientific endeavor, and now, when we can record the practical disappearance of the animosities engendered at the time referred to—since this question as such has, to all intents and purposes, ceased to exist—the generous rivalry existing between the Society and the Association tends directly to stimulate scientific advance, since the aim of the members of the one is not to be outdone by the members of the other. In thus recording the conviction that in the State of New York the lion and the lamb are ready to lie down the one with the other, we would express the hope that the leaders in the American Medical Association may take the requisite steps at the next meeting to place themselves on the broad basis of elevating scientific medicine irrespective of such a dead issue as the code question. Under the guise of the figment which they still cling to can be found as many sinners against the tenets they are supposed to be guided by as any one can detect among those of the medical profession in the State of New York who are actuated rather by interest in humanity than restrained by barriers which facts testify cannot be built without many a loophole.

PROMISCUOUS EXPECTORATION.—Dr. HERMANN M. BIGGS, pathologist and director of the Bacteriological Laboratory of the New York Health Department, and Dr. T. MITCHELL PRUDDEN have presented for consideration to the Sanitary Bureau further special suggestions in reference to what feasible means might be instituted toward preventing promiscuous expectoration.

It is conceded that tuberculosis is an infectious communicable disease, that the cause of the disease is a germ, that the germ is the specific cause, that it alone can cause consumption, and that by the transmission of this germ from the source of infection to individuals capable of such infection is tuberculosis developed and spread.

In the report presented to the Sanitary Bureau the importance of sufficiently enlightening the community on the subject of the spread of contagious disease is dwelt upon. A direct appeal is made to the intelligence of the masses to co-operate faithfully in order to limit and abate this expectoration nuisance in public places. Attention is called to the danger of the contamination of public places by the expectorations of individuals the subject of throat and pulmonary affections.

Besides that of pulmonary tuberculosis, it has been sufficiently established that the sputa of persons sick with pneumonia, diphtheria, and influenza con-

tain the specific micro-organisms of these respective diseases, and it is through this expectoration, which becomes dried and pulverized and disseminated through the air, that the bacteria therein gain access to the respiratory passages of persons previously unaffected, and disease invited. In all probability, also, similar conditions favorable to the spread of scarlatina, morbilli, and pertussis exist, but in these affections widespread dissemination of the contagium is more or less limited, simply owing to the fact that in many instances the afflicted are sufficiently ill to necessitate confinement to an apartment or in bed.

But in regard to pulmonary tuberculosis the situation is of an entirely different nature. Consumptives—weeks, months, and, in some instances, years after the inception of their disease—are present in public places and buildings, and contamination by the sputum and indiscriminate expectoration of those who exercise no precaution persists and tuberculosis flourishes.

Those interested in sanitation have been for some time at pains to satisfactorily solve the question of the prevention of contamination by bacteria-laden sputum. This can only be successfully accomplished by sufficiently educating the community as to the danger of promiscuous spitting and by the establishment of an ordinance prohibiting expectoration on the floors of public places, buildings, cars, etc.

That there is a tendency toward accomplishing this end may be gathered from the report submitted to the Sanitary Bureau, the import of which is as follows: That there be conspicuously placed in all public places in the city, in the street-cars, elevated roads, places of amusement, and in municipal buildings printed notifications calling special attention to the danger of careless expectoration. Moreover, that suitable receptacles be placed at or in public places for the reception of expectorated material; that the managers of the "L" roads and those of the street-car lines be requested to co-operate in reference to the matter of promiscuous spitting from the car windows, and institute means to abate and prevent this nuisance.

By mutual co-operation on the part of the Health Department and the public in general much good will be accomplished. The mortality of this dread disease will be reduced to an extent comparing favorably with what we have witnessed in instances of other contagious diseases which we have absolutely under control owing to our appreciation of the causative factors limiting their spread and what perfected sanitation has taught us.

GENERAL MEDICINE

Department Editors

WILLIAM CHARLES GUTH, M.D.

and

HENRY TURNER BROOKS, M.D.

Collaborators

ADOLPH ZEH, M.D., ADOLPH BARON, M.D., JOHN HOCH, M.D., WILLIAM VISSMAN, M.D., WILLIAM Y. FINCH, M.D., GEORGE W. BLANCHARD, M.D.

Biology of the Gonococcus.—Drs. STEINSCHNEIDER and SCHAEFFER (*Berl. klin. Woch.*, 1895, No. 45)

After a number of experiments for determining the best culture media, the powers of resisting temperature, and the pyogenic properties of the gonococcus, the authors conclude:

1. That the best media are blood-serum or serous fluid of man, but that the serum of the ox, sheep, dog, rabbit may be substituted, and that these media cannot be dispensed with.

2. Urine-agar has not proved to be a reliable medium, in their experience.

3. In Wertheim's plate method a sterile camel's-hair brush may be profitably substituted for the platinum loop in spreading the pus over the surface of the serum-agar plates.

4. Exposure to a temperature of 40° C. for 12 hours or more not only inhibits the growth, but destroys the vitality of the organism.

5. When exposed to room-temperature for not too long a period, proliferation is inhibited, but not destroyed.

6. When gonorrheal pus is mixed with water or urine, gonococci may retain their vitality for one to two hours, under favorable conditions even longer.

7. When introduced into the subcutaneous connective tissue the gonococci do not produce suppuration.

Filling of the Heart During Life and Post Mortem.—KOLOMAN BUDAY (*Zeit. f. klin. Med.*, 1895, XXVIII, No. 4-5, pp. 348-361)

In the first series of experiments the author killed previously curarized animals by injection of digitalin, chloral hydrate, or muscarin, by suspension of the artificial respiration, or by electrization of the heart muscle by means of needle electrodes, and then, by weighing, determined the filling of both sections of the heart. In those experiments in which death of the heart was not sudden, but gradual—in death from asphyxia, or small doses of digitalis or muscarin—the filling of the right ventricle exceeded that of the left by half. On the other hand, in the remaining experiments in which death of the heart was sudden, the filling of the right ventricle was even more (threefold), because, in the last group, as the author states, the left heart dies in a state of contraction; in the former group in a relaxed condition. In favor of this speaks the relation of the total heart muscle to the filling of the individual halves—for the right half in both groups an equal relation, for the left heart in the last group a significant excess of muscle over the contents.

In a second series of experiments the author ligated the heart at the atrio-ventricular junction *intra vitam*. Under normal conditions and in presence of vagus irritation he found the filling of both sides of the heart to be equal. On the other hand, in the initial stadium of asphyxia a slight, in the final stadium of the same and in the acme stadium of muscarin action, significant excess of the filling of the right ventricle over that of the left was

observed; a condition which is explained by unequal work of the heart in the states named. Finally, during the stadium of increased blood-pressure, experiments with digitalin gave a much more intense filling of the right ventricle—a phenomenon which, from experiments carried out for the purpose, the author seems inclined to explain by incongruous activity of both sides of the heart.

Circumstances under which Chloroform is Preferable to Ether as an Anesthetic.—GEO. W. GAY (*Boston Med. and Surg. Jour.*, 1895, CXXXIII, No. 18)

Ether is the principal agent used in general surgery throughout the Northern, Middle, and Western States, while chloroform has the preference in the Southern States, as well as being the favorite anesthetic in a majority of cases in foreign countries.

Cheever states that ether is about ten times as safe as chloroform, according to the largest and most reliable statistics.

The author says that there are a comparatively few conditions under which chloroform is the preferable anesthetic; he gives the following cases as conditions in which chloroform is the better anesthetic, namely, all operations liable to be attended with spasm of the glottis, edema of the larynx or lungs, profuse secretion of fluids in the air-passages, and tonic contraction of the respiratory muscles; all of which can be done under the influence of chloroform with more safety and satisfaction than under ether. Chloroform does not obstruct respiration to the extent that ether does, nor irritate the mucous membranes, nor increase the secretion of mucus, nor produce as much spasmodic action of the muscles of the throat and chest as does ether. For the above reasons chloroform is superior in the following diseases and conditions:

All cases requiring tracheotomy and esophagotomy—as membranous croup, laryngitis, acute, chronic, traumatic, specific, or tubercular; edema of larynx or glottis; malignant disease of throat and neck; deep cervical cellulitis; deep tumors of the neck, as bronchocele; foreign bodies in air-passages; foreign bodies in esophagus; bronchitis in the aged; and asthma,—these are the affections in which the author has had a good deal of experience, and of which he principally speaks from his own experience. He omits, for obvious reasons, a consideration of its use in obstetrics.

Kocher, of Berne, who has recently reported 1000 thyroidectomies for goiter, had but one death, which resulted from bronchitis following the administration of ether. There were no deaths from chloroform. His method of administration is to begin, in all cases, with chloroform, and continuing the anesthesia with ether.

Dr. Gay says that the most characteristic feature of the danger from chloroform is the fact that about 40 per cent. of the accidents occur in apparently vigorous, healthy people, about to undergo some minor operation, as the pulling of a tooth, incising a felon; and that usually death occurs during the early stages of the anesthesia, sometimes within a very few minutes before complete insensibility is reached. He says this is where the danger lies in using this agent in minor surgery.

The author, in conclusion, states that chloroform is a more satisfactory anesthetic than ether for operations liable to be complicated by difficult or suspended respiration; and that in those cases, when carefully administered, it is reasonably safe.

The Cold-bath Treatment of Typhoid Fever in the French Army (*Lyon mtd.*, LXXX, 1895, p. 409)

The Brandt treatment of typhoid fever has never met with much favor among the surgeons of the French army, but the tone of the following circular just sent out by NOGIER, Director of the Health Service of the 14th corps, at Lyons, indicates that a change of sentiment is at hand:

"Concerning the treatment of typhoid fever, the statistics of the 14th corps show that a smaller percentage of mortality has been obtained by those surgeons who used the cold-bath treatment and employed it systematically till there was a permanent fall in temperature. Not to give patients the benefit of this chance is to incur a responsibility to which no surgeon should expose himself, and from which he cannot excuse himself by arguing that he has not the proper means to carry out this line of treatment. It belongs, in fact, to all those having hospital service in charge to organize in such a way as to make this treatment easy, and, if there be need, to make urgent demand at the proper time for the material and the *personnel* required."

The Surgical Treatment of Diphtheria.—A. H. MEISENBACH (*Med. Rev.*, Vol. XXXII, No. 23)

From the standpoint of the surgeon the author discusses briefly the treatment of diphtheria by: (1) tracheotomy, (2) intubation previous to the introduction of serumtherapy and at the present time.

COHEN reports, in a study of 5000 cases of tracheotomy, recovery 1 in 4.

CHEYNE, 1000 cases, recovery 1 in 4.

Philadelphia Children's Hospital, recovery 43 per cent.

The author has performed 20 operations, with 5 recoveries.

The following causes may be considered as influencing the result in tracheotomy for diphtheria: (a) age; (b) time of operation; (c) severity of the disease, as manifested by local and general constitutional symptoms; (d) after-treatment. The younger the children the more unfavorable the prognosis and the disease most fatal.

The time of operation should be as early as possible; the real element of danger is the procrastination—allowing a stenosis to go on until the blood is surcharged with the elements of imperfect oxidation.

Intubation in the last five years has been gaining ground and favor in Germany and Austria. RANKE, of Munich, cites 1345 cases intubated in croup, with 553 recoveries—38 per cent. The author has resorted to intubation only once, and finds that it is not as easy a procedure as we are led to believe. He believes that, if tracheotomy could be performed at the same time (comparatively), the percentage of recoveries after tracheotomy would be higher.

What influence the serumtherapy will have in lessening the field and opportunity for surgical procedure cannot be established at this time.

From a series of tables WELCH gives the following:

Treated with antitoxin, 4294; 27 per cent. required tracheotomy or intubation.

The fatality in tracheotomy, 39.8 per cent.

The fatality in intubation, 28.9 per cent.

Intubation followed by tracheotomy, 53.8 per cent.

Compared with statistics before the introduction of serum treatment:

A reduction in fatality of tracheotomy cases of 34.1 per cent.

A reduction in fatality of intubation cases of 49 per cent.

VON RANKE states that formerly 5 per cent. of his stenotic cases escaped operation, now 33 per cent.

From the foregoing the author makes the following conclusions:

1. Although the antitoxin is the most valuable remedy that has been discovered in the treatment of diphtheria, it cannot be looked upon as an infallible one—a specific in all cases.

2. That, though it may lessen the necessity of operative treatment of diphtheria, a certain number of cases will always exist where surgery must come to the rescue.

3. The ancient dictum, "urgent symptoms," should be discarded as a memento of the past, and early operation advocated.

4. That early operation should be construed to mean that medical treatment is unavailable to check stenosis, and that stenosis should not be allowed to progress until the vitality of the patient has been impaired.

5. That until recently(?) the stenosis in the majority of severe cases has not been amenable to medical treatment.

6. That the indications are the same, both for tracheotomy and intubation.

7. That the statistics of intubation are better than those of tracheotomy. On account of its being a bloodless procedure it does not meet the opposition of the laity, and is used earlier.

8. That if tracheotomy were performed earlier the percentage of recoveries would be higher than at present.

9. That tracheotomy does not usually add an element of danger in the prognosis of a given case.

10. That it will take further experience in the use of the serum treatment of diphtheria to fully establish its full value.

Nature of Chlorosis.—S. KLEIN (*Wien. med. Presse*, 1895, No. 47, p. 1785)

In chlorosis the number of the red blood-corpuscles may be normal, but is usually considerably diminished; the normal number is found in less than one third of all cases. The relative quantity of hemoglobin is always diminished to a greater degree than would correspond to the diminution of blood-corpuscles, and we are therefore justified in saying that every blood corpuscle is poorer in hemoglobin. Even in cases in which the number of blood corpuscles is normal, the amount of hemoglobin is sometimes enormously decreased, its percentage being 40 per cent., 32 or even less. The specific gravity of the blood-serum in chlorosis is usually normal,—about 1030,—whereas that of the blood-corpuscles is always diminished, showing that the changes in the blood are to be found only in the red blood-corpuscles. These latter are richer in water and contain less albumin and hemoglobin than normally. Changes in the shape of the blood-corpuscles are frequent, especially in cases in which the number of them or the amount of hemoglobin is greatly decreased; usually the corpuscles are smaller than normally. Blood-corpuscles containing nuclei are found in small numbers only—two or three in a specimen. The early stages of pernicious anemia are very similar to the severer stages of chlorosis, so much so that mistakes in diagnoses may easily occur. The number of leucocytes is usually normal.

As regards the amount of iron in the blood of chlorotic patients, it is generally admitted to be less than one half that found in normal conditions, although in some cases the decrease may be much less pronounced. The alkalinity of the blood is sometimes, but not invariably, increased. Whether the entire quantity of blood is increased, giving us the so-called Polyemia serosa, is still an open question. Most cases occur in females about the time of puberty, although cases have been described occurring in women between 30 and 40 years of age; that abnormalities in menstruation are, however, frequently important factors in causing the disease cannot be denied.

SURGERY

OPHTHALMOLOGY, OTOTOLOGY, RHINOLOGY,
LARYNGOLOGY, DERMATOLOGY, ORTHO-
PEDIC AND GENITO-URINARY SURGERY

Department Editor
SAMUEL LLOYD, M.D.

GENERAL, ORTHOPEDIC, AND GENITO-
URINARY SURGERY

In charge of B. FARQUHAR CURTIS, M.D., T. HALSTED
MYERS, M.D., WILLIAM B. COLEY, M.D., GEORGE
KNOWLES SWINBURNE, M.D., E. M. FOOTE, M.D.

Pressure Paralysis of Crural Nerve Acquired During Anesthesia.—GUMPERTZ (*Berl. klin. Wochenschr.*, Oct. 14, 1895)

GUMPERTZ reports the case of a woman 33 years old, who complained of pain and numbness of the right leg, especially on the inner side, after a gynecological operation in anesthesia, the limb having been held in a position of extreme flexion. Four weeks later an examination showed that the limb was held extended in the hip and knee joints, somewhat abducted, and rotated outward. The iliopsoas and quadriceps were paralyzed, and there was anesthesia of the middle cutaneous and both saphenous nerves. These nerves and the crural nerve were tender to pressure. Electric excitability of the muscles supplied by the crural was reduced, and the patella-reflex of that side diminished. The case made a good recovery.

The Parasitic Theory of Tumors.—HAUSER (*Biolog. Centrbl.*, Oct. 1, 1895, p. 700)

HAUSER sets himself to answer the following questions:

1. Are there parasitic diseases which present certain analogies to the development and growth of tumors, especially the malignant varieties? 2. Can the anatomical and biological peculiarities of tumors, especially cancer, be made to agree with the parasitic theory? In syphilis and in tuberculosis as well as in cancer, secondary tumors are found; but in the former the cause of their appearance is the advance of an infection which (at least in tuberculosis) has been proven to be a certain bacillus, while in cancer the infection depends upon the cancerous cell itself becoming transported to a new situation. It might be claimed that with the cell some of the primary infectious material was also transferred, but then we must allow that this material has the power of converting cells of other types to epithelial cells, a power which nothing as yet known possesses. The study of karyokinesis has shown beyond doubt that the cells in the secondary tumors all develop from

the original epithelial cells which have been transported to that new situation, so that this hypothesis is without foundation; consequently the apparent resemblance between the glandular infection of tuberculosis and syphilis and that of cancer is proved not to exist in reality.

In this metastasis, also, is observed a hitherto unknown feature of cell-life, the unlimited powers of individual reproduction and of invasion of the tissues around them, shown by the epithelial cells in their new situation; for under such conditions the normal cells would be more likely to die out.

It is true that animal parasites have the power of exciting a peculiar tumor-like growth of tissues, as shown by the intra-canalicular papillomata of the biliary passages caused by the coccidia, and still more by the galls produced in plants by certain insects, for neither of these forms of new growth can be explained as growth by the destruction of the resistance of the surrounding tissues, or by an increase of the normal powers of growth of the tissues. The galls are developed in a tissue which does not show the least power of regeneration, and moreover, the galls always correspond in their characteristic forms to the special insect which has caused them, proving that there must be some peculiar special stimulation for the growth of each variety. But in both the coccidia-papilloma of the liver, and the vegetable gall, there is a complete absence of the limitless growth of cells, and of the metastatic phenomena observed in malignant growths, the new-growth remaining strictly limited to the immediate neighborhood of the parasite itself.

The peculiarity of malignant tumors, therefore, in which the tendency of the individual cell to become, as it were, a parasite living on the other tissues, cannot be explained by reference to these facts in the biology of animal parasites. Nor can the explanatory theory of PFEIFFER and ADAMCIEWICZ be admitted, which claims that the cancer cell is not a cell of the body, but that every one is an individual parasite resembling epithelial cells in form and characteristics; for this hypothesis is contrary to every accepted fact of cancer growth. The intimate connection between the benign and the malignant tumors is another obstacle to the parasitic theory of their origin, for it must be assumed that every tumor has its own parasite, or that one such organism has the power of producing such different structures as cartilaginous and myomatous tumors as well as epitheliomata.

The majority of the objects seen in epithelial cells of cancer, and supposed to be parasites, are degenerative products of those cells; and even if the others, the true nature of which is still uncertain, should prove to be coccidia, the task of bringing them into the rôle of causing these tumors is not complete; for, as the coccidia live naturally in epithelia, what wonder is it that they should settle in the rich epithelial tissues of a cancer?

With a really parasitic tumor showing the active spread of a cancer, every portion of it should contain the parasite in full infectious force; and yet the successful inoculations of such material are exceedingly rare and can all be interpreted readily as mere instances of transplantation, just as is observed with normal tissues of the body. In a word, there is as yet no reasonable proof, no matter how small, of the parasitic theory of the etiology of cancer. Investigations in this direction should be undertaken only by men thoroughly equipped by complete knowledge of all the details of cell biology in the normal and the neoplastic structures of the body, as well as of all the facts in the biology of protozoa.

Some Rare Forms of Bony Ankylosis.—HOWARD MARSH (*Brit. Med. Jour.*, No. 1818, p. 1087)

Marsh contributes a very interesting paper on the clinical history and pathology of these cases. The old views that suppuration in joints must be followed by bony ankylosis, and that bony ankylosis was only caused by suppuration, he holds, are no longer tenable. In pyemia, acute suppurative arthritis following wounds, and the acute arthritis of infants, if the joint is freely opened, irrigated, and drained aseptically, perfectly free movement may be preserved. Sometimes even after aspiration complete repair follows. Where ankylosis does follow it is most often fibrous, not bony. This is also true in chronic suppurative joint disease.

Bony ankylosis, apart from suppuration, is met with in tuberculosis at times. The inflammation in these cases is from the first plastic. It is never active. There is little alteration in the articular ends, and so little swelling, heat, and pain that the condition of the joint may escape notice for some time. The ankylosis takes place whether splints are worn or not, and Marsh knows of no way of averting it. An elbow completely synostosed in this way was shown, and another specimen showing complete bony ankylosis between bodies and neural arches of the second and third cervical vertebræ.

Marsh believes that bony ankylosis can occur in Charcot's disease apart from suppuration attending perforating ulcer. He cites Charcot's case of a tabetic foot in which the under surface of the astragalus presented bony vegetations. The scaphoid and cuboid were scarcely recognizable, and the internal cuneiform was fused with the first metatarsal, and the middle cuneiform with the second metatarsal bone. All the tarsal and metatarsal bones were spongy and friable. Charcot remarks that these complex lesions, occurring apart from traumatism and suppuration, can only be classified as definite osseous and articular changes accompanying tabes.

Marsh showed two other feet which were the seat of almost universal ankylosis. The superficial surfaces of the different bones are covered with vegetations and continuous bony deposits, which bridge over the intervals between them. On section, however, it is discovered that some of the tarsal joints themselves are very little changed. Their cavities can still be traced, and even the articular cartilages can be recognized. Some of the tarsal and phalangeal joints, however, have undergone such complete synostosis that no vestige of their cavities remains. The history of the cases from which these specimens were derived is unfortunately unknown. The author, however, thinks they were not caused by suppuration. The formation of osteophytic outgrowths so marked here and in Charcot's case is also well shown in a tabetic foot in the museum of St. Bartholomew's Hospital, where the tibia and fibula are ankylosed by bone, though no suppuration had occurred.

In a case in which the median nerve had been divided and the hand had become clawed, Mr. Bowlby found that bony ankylosis had occurred in one of the interphalangeal joints of the ring-finger, while several of the other finger-joints were stiff, although as yet ankylosis had not taken place.

It is well known that in gout and gonorrheal rheumatism bony ankylosis occurs entirely apart from suppuration.

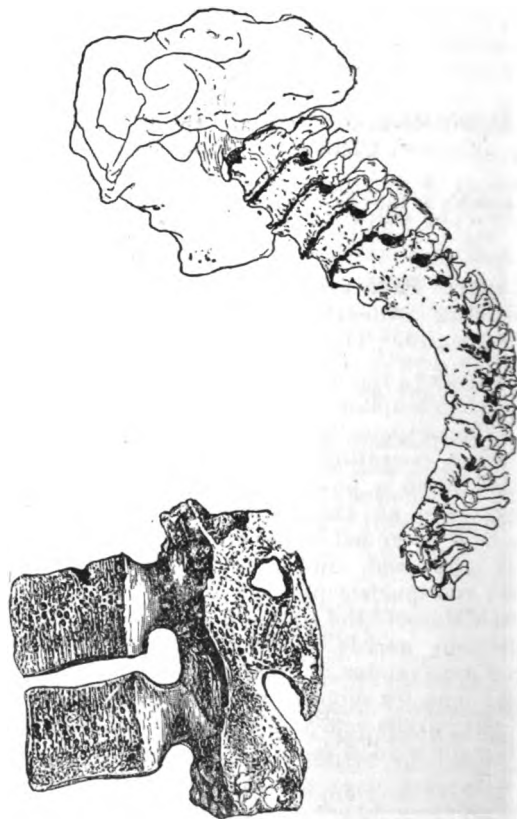
In some instances severe contusion of the articular surfaces of a joint may be followed by bony ankylosis. This result has followed in the temporomaxillary joint after a heavy fall upon the chin.

Bony ankylosis is not very uncommon in the spine in the more extreme forms of lateral curvature. The

vertebræ are fused together in the cavity of the curve. Similar examples may be found in almost every large pathological museum.

Marsh, to illustrate another group of cases of multiple bony ankylosis without previous suppuration, quotes Dr. Fagge's case:

A man, aged thirty-four, was admitted into Guy's Hospital in 1874. In the previous year his spine became stiff, and formed a rounded curve; later the right hip became fixed. He died of chest troubles following difficulty of respiration. At the post-mortem examination the arches and the spinous processes of the dorsal vertebræ were found completely ankylosed, and so were the articular processes. The vertebræ were much softened, and could be cut with a knife, and the spine had become fractured in moving the body. The ribs were firmly and extensively ankylosed to the vertebræ. The right hip was also ankylosed.



In osteo-arthritis of the spine also bony ankylosis is common, and is produced by ossification of the anterior common and other ligaments, or by the formation of buttresses of bone passing from one vertebra to another, the joints remaining unaffected in the last case.

Bony ankylosis may therefore be a part of wide degenerative changes in the part involved as well as a separate process. The pathology of cases like Dr. Fagge's is unknown.

Whenever this condition seems likely to occur, great care should be taken to keep the joint concerned in a useful position. The use of passive movements cannot prevent bony ankylosis. Indeed, by maintaining irritation and promoting inflammatory exudation, it is likely to produce a directly opposite result. When bony ankylosis has occurred, excision or osteotomy may be freely employed, in order to correct any deformity that has taken place, for, by methods that are now available, these operations are attended with scarcely an appreciable risk.

In the discussion which followed, Mr. Targett

compared the ossification of the vertebral joints and ligaments to myositis ossificans. The most rapid and complete ankylosis without suppuration was found in puerperal fever and other kinds of sepsis. Tuberculosis mesenteric glands suggested that cause for Dr. Fagge's case.

Mr. Bowlby said that after nerve injuries the joints supplied by them became swollen, tender, and partially ankylosed. The changes are usually not permanent, but there may be a disposition of fibrous tissue in the ligaments often leading to permanent stiffness. He thought that osteo-arthritis would be found to be due to changes in the nervous system.

NOSE AND THROAT

In charge of JAMES E. NEWCOMB, M.D.

Treatment of Hypertrophic Rhinitis by the Bipolar Electric Method.—SCHEPPEGRELL (*Rev. int. de Rhinol.*, V, 1895, p. 205)

The author declares the aim of all rational treatment of this condition to be the reduction of hyperplasia, so that nasal respiration may go on in a normal manner. To effect this end we have chromic acid, trichloroacetic acid, and the electro-cautery. He has found that chromic acid leaves behind a stinging pain in the nose as soon as the effect of the cocaine, previously applied, has passed away. An inconvenience common to all three of the agents enumerated above is the formation of a cicatrix.

Electrolysis avoids both of the inconveniences noted. The bipolar method is the preferable one (*i.e.*, both electrodes in the nose). S. describes in full the apparatus employed by him. He enumerates as the advantages of the bipolar over the unipolar method:

- 1st. The former is more rapid in action.
- 2d. It is less painful.

- 3d. Its action is more effective on the tissues.

As compared with other methods electrolysis is preferable, because:

- 1st. It is conservative and does not destroy the mucosa or its glandular elements.
- 2d. It is but little painful to the patient, and not at all difficult for the operator.
- 3d. Being so largely a submucous operation the phenomena of reaction are very slight. The electrolyzed tissues are frequently absorbed instead of forming a cicatrix, as happens with other methods.
- 4th. The dangers of subsequent adhesions are practically nil.

The procedure is contra-indicated in very young children and nervous patients. It requires, of course, a longer *séance* than the cautery. In certain nostrils, moreover, the anatomical formation is such as to preclude the proper introduction of the needles.

Phenol Sulphuricinate in Chronic Pharyngitis.—BLONDIAN (*Rev. int. de Rhinol.*, V, 1895, p. 229)

This disease presents itself, says the writer, under three clinical forms,—the simple erythematous, the simple, or granular, and the dry or atrophic,—which are but successive stages of development of the same anatomo-pathological process.

The treatment of the first form must include, in order to be successful, the counteraction of the lymphatic diathesis, which is so regularly present. Astringent gargles are indicated. In the second form we must remove hypertrophied glandular elements whether occurring as adenoids or tonsillar enlargements. On the pharyngeal wall the cautery tip has seemed to offer the most accurate thera-

peutic benefit. BLONDIAN has, however, substituted therefor, and with some success, the phenol sulphuricinate, combined with vibratory massage; but he prefers the cautery as promising the best results in the majority of cases.

In the dry form, however, friction with solutions of the phenol salt has effected in some instances remarkably beneficial results. The membrane has seemed to reassume its normal secreting functions. A 30-per-cent. solution has generally been used. The remedy causes but slight pain, though a sharp pricking feeling may last for a few moments. The area affected becomes covered with a whitish layer, under which a slight inflammatory process seems to occur. A cocaine solution may be applied if the smarting is too intense. Under cocaine also oblique linear scarifications may be made. The sulphuricinate is then applied, and the scarifications allow its penetration to the submucous tissues. This treatment may be repeated at weekly intervals if necessary.

EYE AND EAR

In charge of WILLIAM OLIVER MOORE, M.D.

Filaria in the Conjunctiva.—ROBERTSON (St. Louis *Med. Jour.*)

The author reports the case of a woman, aged 32, who had lived in Africa for years. In the warm climate of Africa the filaria, the parasite, made its appearance frequently, but on the patient's return to England it was only visible in warm weather. When visible, the eye appeared normal except for a small vesicle at the outer part of the conjunctival cul-de-sac, and tortuous movements could, under favorable conditions, be seen beneath the conjunctiva. The filaria was removed by cocainizing the conjunctiva and incising it; on removal it looked like a piece of fishing-gut, was active for a short time, but soon died. It was 25 mm. long and 0.5 mm. thick. No filaria were found in the blood.

Diagnostic Value of Fluid Discharges from the Ear in Head Injuries.—MILES (*Edinburgh Med. Jour.*, November, 1895)

The author arrives at the following conclusions:

1. That while in the majority of cases in which bleeding and welling of cerebro-spinal fluid from the ear are present a fracture of the *middle fossa* of the skull exists, these signs are not pathognomonic.
2. That the fracture is in many, perhaps in most, cases simply a coincidence.
3. That the great bulk of the hemorrhage comes from the vessels of the arachnoid membrane, and of the temporo-sphenoidal lobe of the brain, and not from the fractured bone.
4. That the path of the discharges is along the sheath of the auditory nerve, through the lamina cribrosa to the vestibule, thence through the middle ear and ruptured membrane to the external meatus.
5. That, excluding the extra risk of sepsis, the prognosis is, on the whole, better when these signs exist than when they do not.

Female Professor of Hygiene at Ann Arbor.—

Dr. ELIZA M. MOSHER, formerly superintendent of the Massachusetts Reformatory for Women, has been appointed professor of hygiene and instructor in the woman's gymnasium in Ann Arbor University. Dr. MOSHER was graduated in 1875 from the institution she has just been called to. Since 1887 she has been practicing in Brooklyn.

OBSTETRICS; GYNECOLOGY; PEDIATRICS

Department Editor
THOMAS S. SOUTHWORTH, M.D.

Collaborators

GEORGE G. WARD, Jr., M.D., GEORGE R. WHITE, M.D.,
EDWARD N. LIELL, M.D., WILLIAM B. NOYES, M.D.

Difficult Labor after Vaginal Fixation of the Uterus.—M. GRAEFE (*Monatsschr. f. Geburtsh. u. Gyn.*, II, No. 6, 1895, p. 473)

Until recently it was taught that vaginal fixation caused no difficulty during labor. Last summer VELDE (*Berl. kl. Wochenschr.*, 1895, No. 36, p. 793) reported a case: The anterior vaginal fornix was drawn up very high, the uterus sharply ante-flexed, and the cervix displaced to the right. The child was transverse, and the uterus contracted so firmly that version was impossible. Porro's operation was performed, and the uterus was found ruptured; mother and child both died.

STRASSMANN reported another case in which the cervix was drawn up above the promontory, and a diverticulum of the anterior uterine wall projected into the vagina. Version and delivery were performed with difficulty.

The author had another case in which the child was transverse, and could not be turned by external manipulation. Before labor began, the patient had an attack of eclampsia. Owing to the difficulty of speedy delivery, the child was removed by Cæsarian section. The mother made a good recovery.

Among 207 cases of vaginal fixation operated by DÜHRSEN 20 have had children. Of these 3, or 15 per cent., had difficult labor.

The author advises against performing the operation on women capable of bearing children, and recommends in its place ventral fixation or Alexander's operation.

Should Intra-uterine Injections of Glycerin Be Used for the Induction of Labor?—B. M. HYPES, St. Louis (*Amer. Jour. of Obstet.*, 1895, No. 6, p. 814)

Three years have passed since PELZER, of Cologne, first advocated glycerin injections for inducing labor. The method was enthusiastically taken up and lauded on both continents as a simple, safe, and efficient means, etc. The author reports in full a case that came under his observation, in which death was due to acute nephritis caused by the glycerin injections, and he quotes four others, reported abroad and in the United States, in which acute nephritis was occasioned. He notes the fact that surgeons are abandoning the injection of iodoform-glycerin into absorbing cavities on account of the nephritis which is so apt to follow. He states that clinical observations by obstetricians and surgeons, and experiments on animals, justify the conclusion that glycerin used in this manner is poisonous and deleterious. No degree of efficiency can justify the employment of means fraught with such danger. In a recent article PELZER admits that his method has not come up to his expectations in all cases and says its uses should be limited and the method never applied to eclamptic cases or in *placenta prævia*. The author decries the employment of the method in any case, and advocates, as the method *par excellence*, *accouchement forcé*. PELZER himself says that large doses of glycerin are apt to destroy the life of the child by exciting too violent uterine contractions.

In examining 33 cases reported the author finds that 13 children were lost. Here again *accouchement forcé* has a great advantage. He sums up as follows: Intra-uterine injections are often inefficient, especially in doses under 50 c.c. They are liable to be followed by all the illeffects of intra-uterine douches in general, as shock, air embolism, thrombosis, metritis, and sepsis. They may produce glycerin-poisoning—*i.e.*, decomposition of the blood-corpuscles, causing diseases of various organs, but especially nephritis with hemoglobinuria. The method takes no consideration of the life of the child.

Chronic Inversion of the Uterus; Thomas Operation; Recovery.—WM. H. SKENE, of Brooklyn (*Brooklyn Med. Jour.*, IX, No. 11, 1895, p. 687)

The author reports a case of inversion of the uterus of seven months' standing which had resisted all efforts at reduction by the ordinary methods, and he was obliged to resort to Thomas's operation, which consists in opening the abdomen, dilating the cervix from above, and pushing up the uterus by a hand in the vagina. Thomas's dilator proved inadequate, and after the cervix was partly dilated the process was completed by the fingers. The uterus resisted reduction for over an hour, but he finally succeeded in pulling it into place by passing a Peaslee needle through the fundus and pulling it up. Tenaculum forceps would have been preferable to the needle, but none was at hand.

Fatal Case of Acute Alcoholic Poisoning in a Child.—WILLIAM H. DEVINE, of Boston (*Med. and Surg. Jour.*, October, 1895)

The following case occurred in a child four years old. Her father noticed her playing with a bottle of whisky, and noticed a strong odor of liquor in her breath and her flushed face. In a short time she sank into a stupor. The father calculated she must have taken about two ounces, and, not calculating any serious results from the occurrence, he went to his work, but was summoned before long by a messenger, who stated that the child had been unconscious since his departure.

On returning to the house a physician was summoned, who pronounced it a case of acute alcoholic poisoning, and gave appropriate treatment. At 1:45 she was in a deep stupor, pulse 120, respiration 40. Two hours later she revealed signs of pulmonary edema; pulse 160, respiration 60, temperature 106°, cyanosis. The child died at 3 a.m., 22 hours after the fatal dose was swallowed.

The interesting points in connection with the case are, the small amount of alcohol taken and the rapid progress to fatal termination, with pulmonary edema. In this connection it is well to consider the importance of carefully watching the dose and effects of alcohol in children, especially in chest cases, lest an overdose produce pulmonary edema and cause an unfavorable termination in some of these cases.

Wealth of Doctors and Lawyers.—It has been estimated that the average of the personal estates of sixty-seven London physicians and surgeons whose wills were noticed during six or seven years was £50,614, or less than half of that of forty-four solicitors. The solicitor, the *Medical Press* points out, has the advantage of having better opportunities for investments, while the expense of carrying on his profession is much less.

SOCIETY MEETINGS

THE HOSPITAL GRADUATES' CLUB

December 19, 1895

Dr. CHARLES H. KNIGHT, President

Potassium Permanganate Irrigation in Acute Stage of Gonorrhea

Dr. GEORGE KNOWLES SWINBURNE read a paper on this subject. [See page 139.]

Dr. GEORGE E. BREWER said that the remarkable freedom from inflammatory complications in Dr. SWINBURNE'S cases was important. In a series of 350 cases treated by him at Roosevelt Hospital some years ago by ordinary methods, epididymitis alone had occurred in 16 per cent. In another series of 250 cases treated by irrigation with bichloride of mercury, an inflammatory complication had been observed in but five cases or about 2 per cent. Dr. SWINBURNE'S results were even better, and the method was certainly one of great value.

Another important fact which was demonstrated by the paper was that no harm followed a continuance of the irrigations during an epididymitis; a fact which was not generally recognized.

The best method of avoiding complications was to cure the urethritis as quickly as possible, and it has been repeatedly demonstrated that a prompt resort to urethral irrigation with bichloride of mercury, or the permanganate of potassium, in competent hands, gave better results than any of the older methods. Irrigation of the posterior urethra and bladder from the meatus, by means of hydrostatic pressure, possesses many advantages over the methods formerly used by passing instruments into these regions.

Dr. C. H. LEWIS said that he did not think the treatment was applicable to private practice. He found in his experience that it was impossible to induce the patients to come sufficiently often. As an almost universal rule he succeeded well in the treatment of these cases with alkaline drugs alone, given internally, and later, if necessary, injections of a mildly astringent character, notably bismuth subnitrate.

Dr. R. GUITERAS considered the best treatment of gonorrhea to be by irrigation, but he believes that it is difficult to carry out this method in private practice. He has obtained better results with nitrate of silver than permanganate of potash. In irrigating the anterior urethra he is in the habit of elevating the douche-bag two feet; for the posterior urethra five feet, which is sufficient to allow it to overcome the cut-off muscle and run into the bladder, after which it is urinated out. The temperature of the solution is to be as high as can comfortably be borne.

It usually takes from seven to ten days for the urethritis to extend to the posterior urethra. In all cases he gives a diluent mixture. If the inflammation involves the posterior urethra and causes considerable tenesmus, he is in the habit of prescribing belladonna to relieve the spasms.

Infected Heirlooms.—An English bacteriologist has had the audacity to examine some beautiful old tapestries that have hung for generations upon the walls of a country mansion. He found them teeming with tubercle bacilli. What a blow this sort of thing would be to the possessors of old family relics if its force could be fully felt!

NEW YORK ACADEMY OF MEDICINE

SECTION ON GENERAL MEDICINE

December 17, 1895

ADOLPH ZEH, M.D., in the Chair

Presentation of a Case of Splenic Myelogenous Leucemia, Not Cured by Bone-marrow

Dr. CHARLES E. NAMMACK presented the patient. She gave her history as follows: Age, 23; nativity, England; admitted to the New York Hospital, March 11, 1895. Previous to admission she had been unsuccessfully treated during 18 months for anemia. Her habits were temperate, menstruation regular and painless, family history negative. On admission she suffered from headache, marked vomiting, fever, prostration, breathlessness on exertion, and insomnia.

EXAMINATION.—Pulse, 112; respiration, 36; temperature, 102.8°; lungs, normal; heart, accentuation of pulmonary second sound, action rapid, but regular and strong; liver normal; spleen extends one inch to the right of the median line and to midway between pubes and umbilicus. Urine: trace of albumin, hyaline and granular casts. Blood: red corpuscles 2,520,000, leucocytes 760,000, a proportion of about three to one, and hemoglobin 50 per cent. She was put on tablet protonuclein every four hours, and bone-marrow spread on bread taken at meal-time. April 4: Ratio of corpuscles and hemoglobin about the same. Patient was relieved of all symptoms except dyspnea on slight exertion, although blood examination did not show improvement.

The patient spent a month at the Convalescent Home, Summit, N. J. When she returned she was in a very good condition, but the ratio of white to red corpuscles was about the same. She admitted some difficulty of vision, and ophthalmoscopic examination by Dr. WALKER revealed double neuroretinitis, and in the right eye a large hemorrhage near the macula. She was ordered Fowler's solution, but it caused vomiting, diarrhea, puffiness of the face, and was discontinued. During the month of July she remained in the country and continued the bone-marrow treatment, and in August, when she returned to the city the spleen was smaller and the ratio of white to red corpuscles was one to ten, no nucleated red corpuscles could be found, and the hemoglobin was decidedly improved. The patient then went to Long Island to live, where she immediately developed intermittent fever of the tertian type and was readmitted to the hospital wards for treatment, August 29. Digestive disturbance associated with the malaria prevented the administration of bone-marrow until October 10. During the run of the malarial fever the spleen had markedly enlarged, but with the subsidence of the fever it diminished. On October 31, Dr. THOMAS S. SOUTHWORTH examined her blood and found hemoglobin 48 per cent., ratio of white to red cells 1 to 13, abundant myelocytes, and numerous nucleated red cells. At present the patient is taking Warburg's tincture, Pearson's solution of arsenic, and Caswell, Massey & Co.'s preparation of bone-marrow.

Dr. MORRIS MANGES: I had a case similar to the one exhibited, and I put him on the bone-marrow treatment and he went down. When he was put on arsenic he improved, but on being put back on the bone-marrow he again grew worse. He died six months later. I also used bone-marrow in a case of pernicious anemia, but it did no good. The results in

ordinary anemia could not be attributed to the bone-marrow alone, as rest and good hospital care did such patients so much good.

Notes on Urinary Analysis: (1) Methods Used by the writer for Detecting Traces of Albumin in the Urine; (2) Standards in Quantitative Urine Analysis.

E. E. SMITH, Ph.D.: I have been asked so often to recommend qualitative tests for traces of albumin that I give the following description of the methods I employ. The first essential is to have the urine perfectly clear. If the urine is acid and fresh, filtering through wet, plaited filter-paper usually suffices; if reaction is amphoteric or alkaline, add one or two drops of dilute acetic acid; and if the specimen cannot be thus clarified, it may be made alkaline with a few drops of caustic-soda solution, and then filtered. Occasionally in decomposed specimens, it is necessary to add ammoniacal magnesium mixture. Dry solids to clarify urine are not to be recommended, as they will remove considerable of the albumin.

NITRIC-ACID CONTACT TEST.—About one-half inch of pure concentrated nitric acid is placed in a test-tube, and an equal or larger amount of urine allowed to flow gently onto this from a pipette; separation of albumin at the contact zone forms the so-called albumin ring. A cloudiness above the contact zone, or a diffused haze does not signify albumin. This test is the least delicate, though when positive it is the most satisfactory. When it is verified by the heat and nitric acid and the ferrocyanide tests, the presence of albumin is satisfactorily demonstrated.

HEAT AND NITRIC-ACID TEST.—About an inch of clear urine is heated in a test-tube to boiling, after which three drops of 10-per-cent. nitric acid are added; if after a few moments there is no reaction for albumin, boil the contents of the tube again and add about ten drops of the nitric acid and set aside.

FERROCYANIDE TEST.—A quarter of an inch of clear 5-per-cent. solution of potassium ferrocyanide is placed in a test-tube, an equal amount of dilute acetic acid is added, the mixture poured into an inch of clear urine, and the liquids well mixed, and the whole set aside. A comparison test-tube is prepared as follows: An inch of urine clarified at the same time as that used is placed in a test-tube, two drops of dilute acetic acid is added, and the tube set aside.

In forming a judgment as to the presence of albumin, several points should be remembered. Recent investigations show that bladder mucus does not contain mucin, but a proteid resembling and probably identical with nucleo-albumin. The old method of adding acetic acid is not satisfactory in removing this. Remembering this, the following interpretation of the heat and ferrocyanide test will be understood. If both react positively, either a trace of true albumin or mucus is present, to decide which it is necessary to observe the comparison tube, in which, if mucus is present, there will be some turbidity from the partial separation of nucleo-albumin. If the urine in the comparison tube is perfectly clear and the reactions with heat and ferrocyanide tests characteristic of albumin, it is safe to conclude that albumin is present. It is to be remembered that albumin should be considered absent from urine till its presence is demonstrated by methods which admit of its distinction from mucus. Undoubtedly the safest basis for interpretation is requirement of all three reactions described, ignoring entirely the presence of such mere traces as fail to respond to Heller's test.

STANDARD IN QUANTITATIVE URINE ANALYSIS.—In the interpretation of the analysis of a twenty-four

hours' specimen of urine, the wide limits of variation in health must be recognized. The most important factor is alimentation. If there is some way of checking this varying factor a constant or limit of variation can be obtained for each constituent which will serve as a basis of comparison for pathological specimens. The most direct procedure would be to obtain exact analytical data of all food ingested, but this is not practicable. A method of indirectly estimating the amount of proteid food absorbed consists in estimating the amount of nitrogen of the urine, and this total nitrogen is taken as the standard of comparison for the other constituents. I have been accustomed to express the total nitrogen as urea; and though this has disadvantages in research it has less in practice. While there can be no definite number adopted, yet a definite limit to the uric-acid ratio in health can be fixed. In disorders of nutrition there is an increase in uric acid and these limits of health are exceeded, the relation becoming a practical index in diagnosis. Other factors may give rise to cell destruction and increased uric-acid excretion; but when by studying the ratio we have eliminated the major factor and by repeated observation have obtained the limit of the variation of the ratio in health, we have a convenient and safe basis for interpretation in disease.

As to the influence of any substance upon uric-acid excretion and the variation of the urea eliminated within narrow limits, we may conclude that slight variations in the amount of uric acid—that is, within the ratio limits of health—can be attributed to a special cause, as the administration of a drug, only when all other factors that influenced the amount are constant, which means that the subject must be in nitrogenous equilibrium. Under such circumstances it is unimportant whether the interpretation is based upon the ratio or the absolute amount of uric acid, since the ultimate result is the same. LEVISON, in his work on "Uric-acid Diathesis," claimed that exercise increased excretion of uric acid, and the experiments evidently showed increase in the uric acid excreted, but I would ask if the increase in uric acid excreted was due to the exercise direct, or only to the fact that the exercise increased the appetite, and the increase in food taken was the direct cause.

(Dr. SMITH presented a tabulated sheet, on which was quoted from the literature an actual experiment on a healthy man, which showed that without any change of exercise or ordinary mode of life the taking of champagne increased markedly the amount of uric acid excreted, as shown by the variation in the uric-acid ratio.)

Dr. MORRIS MANGES: I think in performing HELLER's test, where the reaction is doubtful, it is well to set the test-tube aside for four or five minutes to see if the albumin ring will form. Dr. WOOD, of Boston, had called attention to the fact that the larger the contact surface the more satisfactory the result, hence the use of a larger tube was advisable. Dr. STEWART, of Philadelphia, had called attention to the fact that some kinds of filter-paper contained enough albuminous matter to cause normal urine to give a reaction with some very delicate albumin tests. I find the trichloroacetic-acid test is utterly useless for delicate tests, as it is too sensitive.

Lieno-Medullary Leucemia

Dr. R. C. NEWTON, of Montclair, N. J., presented the history of a case of lieno-medullary leucemia, as follows: A native of Poland, laborer, married, aged 30. Admitted to Mountainside Hospital, Sep-

tember 12, 1894, with a painful and indurated swelling in the left ischial region. This was poulticed for a few days and then incised, a large quantity of dark, fetid, clotted blood was evacuated, and the cavity was thoroughly washed and packed with iodoform gauze. All the tissues about the rectum were broken down so that a large irregular cavity nearly surrounded the bowel. A large tumor was found occupying nearly the left half of the abdominal cavity. This proved to be the enlarged spleen. The patient was put on potassium iodide, but this had to be discontinued on account of digestive disturbances; he was subject to diarrhea, which was always hard to control. A blood count revealed 175,000 white corpuscles and between three and four million red corpuscles to the cubic millimeter. It was learned that he had had the large tumor for ten years. At one time had an abscess under each arm which had yielded to surgical treatment, and gave an indefinite history of malaria, strongly denied syphilis and intemperance. The perirectal lesions healed and then another large hematoma appeared in the deep muscles of the right thigh, which nearly caused fatal hemorrhage when incised. The patient gradually improved under rest and tonics. The spleen did not diminish or seem to increase in size. After being under observation for six months he desired to return to his family in Poland, was discharged from the hospital, and lost sight of.

A course of daily inunctions of mercurial ointment into the skin over the enlarged spleen had no apparent effect upon the size of this viscus, but seemed to act as a decided general tonic.

Intubation is rapidly supplanting tracheotomy. The statistics of intubation are improving, and with the prompt recognition of its early use will continue to improve. In 1888 WAXHAM reported 1027 cases, with 26.77 per cent. of recoveries. Within two years 2728 cases were reported, with 37.4 per cent. of recoveries. In June, 1894, VON RANKE reported 1445 intubations, with 38 per cent. of recoveries. In 218 cases of intubation treated with calomel sublimation, DILLON BROWN had 39.9 per cent. of recoveries. An operator should not perform intubation without previous practice upon the cadaver. A physician inexperienced in intubation should do a tracheotomy instead. Many accidents and complications formerly believed to be inherent to the operation are now known to result from lack of dexterity and judgment in the operator. Calomel fumigation may prevent the laryngeal stenosis. In 505 cases treated by calomel fumigations, 420 were not operated, and 174 died, being 34.5 per cent. of the 505 cases. Of 85 operated cases, 56 died, or 11 per cent. of 505. Total deaths in 505 cases, 230, or 45.5 per cent.

Croup following a nasal or pharyngeal diphtheria is a local disease due to direct extension from the pharynx or from inspired pathogenic organisms. Frequently the pseudo-membrane is thin and develops slowly, because the organisms are growing on a soil made unfavorable by an immunity acquired by the preceding diphtheria. Acquired immunity modifies the very two conditions which are fatal in diphtheria. Theoretically, a prompt administration of antitoxin in pharyngeal diphtheria will lessen the probability of croup and will modify it when it does occur. It should also give good results in primary croup. Diphtheria antitoxin does all that may be reasonably expected. It does not act chemically and is not an antidote to a poison. Practically it does not affect the already existing local disease process. It does produce a tolerance to the specific toxemia, so that in many cases, as regards the con-

stitutional condition, the convalescent stage is reached in 24 hours.

Intubation, combined with antitoxin, gives better results than did tracheotomy, and the average mortality without antitoxin is also improved. Hence in the foregoing statistics the death-rate is slightly higher, because about two-thirds of the cases were tracheotomies. The mortality of croup with antitoxin treatment, and intubation when necessary, is not far from 25 per cent. Whether antitoxin produces bad after-effects is still a mooted question. It has certainly not yet been proved. KOLISKI made over one thousand post-diphtheritic autopsies before the antitoxin era, and later upon 75 cases dead of diphtheria after antitoxin treatment. He positively denies that there are found any lesions not found in cases which have not received the serum.

SECTION ON SURGERY

January 13, 1896

B. FARQUHAR CURTIS, M.D., Chairman

Hip-joint Amputation by the Bloodless Method

Dr. BODINE (for Dr. J. A. WYETH): I wish to show you a case of hip joint amputation with the special object of exhibiting a new high insertion for the transfixion pins. The near pin is inserted through the tendon of the adductor-longus muscle, close to the bone; the other well above the trochanter, so that the rubber tube rests just below the anterior superior iliac spine. In this way one can disarticulate without removing the rubber tourniquet or experiencing any inconvenience from its presence. The operation was done on September 8, 1895.

Osteo-sarcoma of Lower Jaw

This next patient is a young girl of 16 years who suffered from a painful swelling of the lower jaw one year ago. She had suffered no injury, and had no bad teeth. Microscopical examination disclosed an osteosarcoma of the lower jaw. It was decided to operate after the manner described by Dr. Sims in the *American Journal of the Medical Sciences* in 1847—a method intended to prevent external mutilation. The orbicularis-oris and buccinator muscles were divulsed, and, by means of silk threads inserted through the lips at regular intervals and kept tight, the buccal cavity was satisfactorily exposed. A tooth was extracted, and the jaw divided in the median line, with the face well on the side to permit the blood to flow out. All the soft tissues connected with the jaw on the outer side were quickly divided, and the temporal muscle was then divided at its insertion. The hemorrhage was controlled by dry packing. The bone was disarticulated. The important point in this operation was the stretching of the sphincter of the mouth, also that the sound half of the lower jaw was attached to the upper jaw by silver wire during the process of healing, in order to keep it in place.

The chairman, Dr. B. FARQUHAR CURTIS: Regarding the internal removal of the lower jaw, I should consider that an operation better suited for cases of necrosis than for malignant disease, because it must be difficult to cut wide of the disease. In most of the latter cases the periosteum must be removed.

Dr. H. LILIENTHAL: I am surprised that a real stretching of the oral sphincter is a possibility. The sphincter ani is always in tonic contraction, and the stretching of this muscle is accompanied by rupture of some of the muscular fibers. I do not see how the sphincter of the mouth can be stretched without

rupturing the mucous membrane. It should be borne in mind that ligatures were also used to hold the mouth wide open. In such desperate cases as the one described it is well, in addition to the saline-infusion apparatus being in readiness, that both thighs should be ligated. In this way, in case of an emergency, the ligature can be loosened and the blood contained in the limb allowed to enter the general circulation at the critical moment.

Transplantation of Skin for Extensive Burn

Dr. BODINE (for Dr. WYETH): This young woman, 22 years of age, is a laundress whose hand was caught in a mangle on May 11, 1895. The soft parts were extensively burned. The first operation for the relief of the cicatricial contraction and deformity was done on October 11. It consisted in turning a large flap of skin, attached at its upper margin to the abdominal wall, and stitching it on the radial side to the thumb and the index and middle fingers. On December 5, under chloroform, the dressing was removed, the attachments divided, and the flap trimmed. The excess of integument will enable further adjustment during future operations. I show a cast illustrating the condition of the hand before treatment.

Recovery, by Operation, of a Perforating Ulcer of the Stomach

Dr. ROBERT F. WEIR: I show you this patient merely as a text for a few remarks on the treatment of this condition by operation. The patient was a girl 17 years of age, and had had attacks of vomiting and hematemesis. Six weeks ago she was seized with severe pain in the epigastric region, and was sent to the New York Hospital, with a diagnosis made by Dr. FOOTE, her attending physician, of perforation of the stomach. To the fact of the early and correct diagnosis—she was operated upon 11 hours after the perforation of the stomach had occurred—I attribute most of the success. On separating the soft adhesions I found on the anterior wall of the stomach an opening about one-fourth of an inch in diameter, through which the contents of the stomach escaped as soon as the adhesions had been broken up. I avoided washing out the stomach prior to the operation, for fear that this might cause serious injury under the circumstances. The ulceration was closed by three primary sutures, supplemented by two layers of Lembert's sutures. Adjacent to the ulcer was a considerable thickening of the stomach wall. Near this there was a thickened area which, from certain symptoms in the lungs, I feared might be a tubercular infiltration. Fortunately this did not prove to be the case. After abstinence from food by the mouth for 48 hours, she was able to take liquid food. This case was an extremely interesting one to me, because I have had two others. I reported in 1892 one such case, and at that time I was able to report only four others. This case of mine proved fatal. I saw another one more recently. There were indications of peritonitis near the right inguinal region, so that I suspected that there might be an appendicitis. It was then of 48 hours' duration. Through the incision in this region the appendix was found to be normal. Through the same incision, enlarged, we found on exploration that there was a perforation of the stomach. A median incision was then made, and the perforation closed, but this patient also succumbed. While these perforations are more common on the posterior wall, when they do occur anteriorly the results are more serious. I have now

been able to collect about forty-one cases of perforation of the stomach in which laparotomy has been performed, with 14 recoveries. In 10 of these cases the average interval between the first symptoms and the time of operation was three hours. In my case the interval was the longest in any successful case reported. Out of 10 successful cases that have been traced for a considerable time, all were found to have remained well. The diagnosis in these acute cases is not usually difficult. We should make a sharp distinction between the acute and the chronic cases. By the latter I mean those lasting from one to three weeks, with abscess formation. These "food abscesses" are often confounded with pyo-pneumothorax. In an ordinary empyema, after a puncture, on making an inspiration, the current of fluid or air will be inward, whereas in these subphrenic abscesses it will be outward. These abscesses are of course to be very freely drained. A point of difficulty in the treatment of these chronic cases is in deciding as to whether or not an effort should be made to close the ulcer. No definite rule can be given on this point; the accessibility of the ulcer will largely settle this question.

Dr. J. P. TUTTLE: I should like to ask whether any attempt was made to freshen the edges of the ulcer of the stomach, or to scrape out the ulcer, at the time of the operation. About a year ago such an operation was described in some German publication.

Dr. WEIR: No such effort was made, and I am not aware that such a procedure has been resorted to by any operator in a case in which perforation has already occurred. An ulcer about to break has been excised, and then the opening closed.

Dr. H. LILIENTHAL: I would like to mention the fact that by inversion of the patient we have an important differential point in diagnosing between empyema and subphrenic abscess. In an ordinary empyema, on inversion of the patient, the dullness shifts immediately to the top of the thorax.

Restoration of the Nose

Dr. B. FARQUHAR CURTIS: I wish to show you this case of restoration of the nose. At the age of 12 years the patient lost by suppuration all the bones of the nose, leaving the skin intact. The operation consisted in detaching the upper lip from the jaw on both sides and dissecting the soft parts from the bones of the face, cutting loose the attachments of the alæ. A platinum support consisting of a tripod, one end of which corresponds to the bridge of the nose, was then inserted underneath. I found it difficult to get a secure hold for this tripod at the upper part. I therefore made an opening so that this leg of the tripod could be bent down and fastened into the frontal bone. The operation was done about three weeks ago. There was considerable hemorrhage at the time of the operation, and the interruptions necessary for anesthesia made the operation very tedious. This man has an almost complete occlusion of the pharynx by an adhesion of the soft palate. The only dressing employed after the operation was a wad of gauze on each side, fastened by a strip of plaster passing across the cheeks. A plug of iodoform gauze was placed in the nose to stop the hemorrhage.

Dr. WEIR: I have done this operation for the restoration of the nose 10 times in all, and in two of the cases I was compelled to remove the support. In one case this was necessitated by ulceration of the support through the nose; in the other, the removal was required because the upper portion of the splint, by pressure, caused a sinking of the support and a

deformity in the nose. In the last two or three cases I have not taken the trouble to bore holes in the maxillary bone to receive the legs of the tripod, and my results have been just as good, and they have been much more easily secured. In cases in which some of the septum remains, yet a portion has sunken, forming a "saddle nose," I have found that an artificial support acted as a foreign body. Where the under surface of the bridge is free in the nostril, and the secretion caused by the irritation of this support can escape freely into the nostril, these supports may be tolerated. Dr. L. A. STIMSON has suggested an admirable method of treating these troublesome cases of "saddle nose." I have found that pieces of celluloid are admirably borne by the tissues, both here and elsewhere—*e.g.*, as an artificial testicle.

Dr. J. H. GIRDNER: I thought it would be appropriate to-night to exhibit some photographs of an old and celebrated case of restoration of the nose—the one treated by the late Dr. THOMAS SABINE. In this case there was a depression from the bridge of the nose down. The deformity was due to lupus. Dr. SABINE brought the middle finger of the left hand up and attached it to the face by lateral flaps. The finger-nail was removed and its matrix destroyed by fuming nitric acid. The arm was kept in position by a plaster-of-paris dressing for about nine weeks.

Dr. SAMUEL LLOYD: I recall seeing another case of this kind in which the operator had failed to remove the nail, and consequently the nail kept growing into the skin of the forehead and the patient came repeatedly to have the nail trimmed or removed.

Operative Procedures for the Removal of Large Neoplasms of the Naso-Pharynx, the Antrum Maxillare, and Superior and Inferior Maxillæ

Dr. BODINE (for Dr. WYETH): In 1888 I performed an operation upon a large vascular tumor growing from the vault of the naso-pharynx. I tied both of the external carotid arteries to control the bleeding which was present. Two weeks later I endeavored to remove the tumor, and succeeded in doing so without much hemorrhage. Gauze compresses were allowed to remain for eight days before removal. There has been no recurrence of the tumor, which was a vascular fibroma. A year and a half later he returned to have the cleft palate that had been produced by the operation sutured; but the parts had atrophied so much by this time that this was impracticable, and I determined not to adopt this plan of operating in the future.

When the tumor is large and projects into the speno-maxillary fossa, the following procedure may be tried: Mr. B—, in March, 1893, began to suffer from severe pains in his head, and was examined by Dr. R. P. LINCOLN, who found a naso-pharyngeal polypus. On June 12, 1894, the growth was removed by Dr. LINCOLN by the galvano-cautery with immediate relief. In July the left cheek began to swell, and in the middle of November it began to break down rapidly. At this time the left eye caused him intense pain. In December, 1894, he first came under my care, and was then in bad condition. The left eye was wide open, and could be closed only with great difficulty. The left cheek was much swollen. There was evidently a tumor which had grown from the pharynx into the antrum of Highmore, and had pressed on the vessels of the eyeball.

I determined upon the following original procedure: Owing to the vascularity of the parts and the

patient's bad condition, a tube was inserted into the median cephalic vein so as to be ready for saline infusion. Before giving chloroform morphine was administered. The hemorrhage was controlled by pressure, and the soft tissues were in no way dissected off from the bone. The eye was displaced to the median line until the anterior commissure of the speno-maxillary fissure came into view; then with a keyhole-saw I sawed through the frontal bone, and through the floor of the orbital cavity and through the antrum of Highmore. A hook was placed in the angle of the orbit, and the zygomatic process of the temporal bone snapped. The hemorrhage was tremendous, but was controlled by rapidly packing sponges into the wound. The pulse jumped from 85 to 140. One pint of saline solution was at once infused into the vein, and the pulse immediately slowed down to 85. By opening the patient's mouth the zygomatic fossa was well exposed. The whole of the antrum was packed with a wick of iodoform gauze. The bone, which had been temporarily displaced, was brought into position and stitched along the line of incision. No sutures were inserted into the bone. The bones have all united in the normal position, and he still has motion of the orbicularis palpebrarum.

The important points were: 1. The character of the anesthetic, morphine being almost entirely relied upon, only 2 dr. of chloroform being used in the operation. In one instance I used nothing but morphine, and the operation lasted over two hours without any ether or chloroform. 2. The preparation for immediate saline infusion. During this operation five pints of saline solution were introduced, and rendered most valuable service. It is always advisable to approach these tumors with the smallest possible incision on the face, not only to avoid interference with the nerves, but to avoid disfigurement.

The next case of interest is that of Mr. C., who came under care July 23, 1895. There had been interference with breathing through one nostril for several months previously. A tumor began to appear in the submaxillary region. I found a tubercular lymphoma in this region. An incision was made at the outer angle of the left eye along the inferior edge of the orbital cavity; then along the facial line downward; then outward near Steno's duct.

The soft tissues were retracted, the anterior wall of the antrum of Highmore was chiseled away, and through this opening the tumor was reached. The growth was found to be non-malignant. A sponge tampon behind the soft palate prevented blood from going into the larynx. The patient made a rapid recovery, and the scar was insignificant. I think that for almost all neoplasms this simple procedure will give the greatest satisfaction.

Here is another case: Mr. J. L., 37 years of age, who came to me August 15, 1893. In 1891 he had begun to suffer pain at the root of a bad tooth in the right upper jaw. He then noticed a peculiar sweetish taste in his mouth. Examination, on drilling a free opening into the antrum and scraping out the antrum, gave a negative result. I enlarged the opening some time afterward, and scraped away more tissue, which I sent to Dr. T. M. PRUDEN.

He reported that it was a fibrosarcoma—myxomatous. I then inoculated the patient with the toxins of erysipelas and of the bacillus prodigiosus, but no reaction followed. I then tried to produce erysipelas by inoculation from a case of facial erysipelas, but with no better success. Finally injec-

tions of the toxins were resorted to again, and erysipelas at last set up. There was no improvement from this treatment, so some months later I removed the entire right upper jaw, the floor of the orbit, the pterygoid process of the sphenoid bone, and the septum of the nose. There has been no recurrence.

Operations for the removal of the lower jaw for malignant tumor are usually done according to one of two methods, viz.: One along the angle of the mouth, the other by an incision entirely within the mouth. The latter method I first did in January, 1890. Under chloroform the left half of the inferior maxilla was removed with good result. I found out afterward that in 1847 Dr. SIMS had described such a method in the *American Journal of the Medical Sciences*, but the operation had been done as early as 1845. The case in which I did this operation has already been presented here to-night.

Dr. R. P. LINCOLN: Fortunately cases like the one described by Dr. WYETH, and in which I have had a special interest, are not common.

To illustrate the danger attending the removal of benign naso-pharyngeal tumors by operations involving section of the facial bones I beg to refer to a paper read by me before the American Laryngological Association in 1883. In that table of cases there were in 28 so treated 8 deaths during or attributable to the operation, and 14 in which recurrence took place within one year. To me this case is of special interest, for the reason that the young man had been operated on by me after a method that has proved almost universally successful, but which the result showed was not sufficient to secure the desired cure. Recognizing this fact, after a reasonable time I advised the patient to submit to Dr. WYETH's suggestion. It is a natural and pertinent inquiry: Why was not the operation that has proved so successful resorted to at first, without subjecting the patient to the annoyance of the treatment that preceded? My answer is the encouragement of experience in successfully treating several similar cases by a method absolutely free from danger. In the paper already quoted I reported that of 10 cases operated on by the galvano-cautery *écraseur*, 8 were cured and 2 recurred within one year; no deaths. I have myself operated upon 13 cases in all, and all successfully but 2—one of the latter being the case reported by Dr. WYETH; the other should be classed as inoperable, cerebral symptoms being present when I first saw the case, and from which he died some months later, I was informed. I had the opportunity to present the patient now present, 10 weeks after my removal of a portion of his tumor, to the Section of Laryngology of this Academy. At that meeting I was fortunate in being able to exhibit a patient operated upon by me 19 years before, who disclosed on examination, when I first saw him, every evidence of tumor, as to its prolongation, below the zygomatic arch, that was found in the case before you.

The treatment in that case consisted in removal by the galvano-cautery *écraseur*, and subsequent cauterization of the stump by means of the galvano-cautery. The prolongation that presented in the cheek, which reached nearly an inch below the zygomatic arch, disappeared in a few months by atrophy.

I offer these remarks as a hearty indorsement of the wisdom of Dr. WYETH's judgment. The operation is certainly a great improvement over Langenbeck's or Rau's, or any of their modifications. At the same time I must remind you that not every case of naso-pharyngeal growth requires such extreme surgical interference.

NINETIETH ANNUAL MEETING OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK

Held at Albany, January 28, 29, and 30, 1896

ROSWELL PARK, M.D., of Buffalo, President

First Day—Tuesday, January 28

The meeting was called to order by the President, Dr. PARK, and the opening prayer was delivered by the Rev. Dr. SELDEN, of Albany.

President's Address.—The President, in his inaugural address, congratulated the profession on the revival of the *Index Medicus*, and the completion of Dr. BILLINGS's great work. He called attention to the existence of a valuable collection of books—the Medical Department of the State Library—unknown to many physicians, and yet at the command of any resident physician in the State, who will assume responsibility and the carrying charges for the volumes. The earnest hope was expressed that the time was not far distant when the American Medical Association would receive the delegates of this State Society with the old-time cordiality, the only obstacle at present being the prejudices of a comparatively small number of persons. Referring to the important matter of "privileged communications," the speaker stated that physicians' rights were often trampled upon in courts. A recent judicial opinion holds that a physician bringing suit for services cannot disclose the nature of those services—an absurdity, and a manifest injustice to the physician. Something ought to be done also to prevent a repetition of a recent act of injustice—a suit for damages against the estate of a physician. In this particular instance, the suit was for alleged malpractice in a case of ventral hernia, and a verdict of five thousand dollars damages was awarded.

Prize Essay.—The prize for the best essay on "Stomach Disease" was awarded to Dr. A. L. BENEDICT, of Buffalo.

Permanganate of Potassium in Diseases of the Skin.—Dr. L. DUNCAN BULKLEY, of New York, in a brief paper, referred to the admirable action of a 1 to 2-per-cent. solution of permanganate of potassium in controlling pruritus due to skin diseases. The solution is brushed over the affected surface twice daily, or oftener, and allowed to dry. The brown stain lasts for a considerable time and the application sometimes causes temporary smarting, but the relief to the itching is very marked. The author had chiefly used it in cases of subacute eczema and had sometimes followed the application by a lotion of calamine and zinc. The permanganate of potash, by its oxidizing action, also caused a melting away of thickened patches of skin.

Water and its Relations to Disease.—Dr. W. P. MASON, of Troy, in a paper on this subject, said that while peaty water sometimes seemed to cause a mild and transient diarrhea, it was at present an undetermined factor in the causation of disease. Hard water does not seem to affect the mortality rate. When turbid water is allowed to settle, it has been found that some of the soluble salts, and many of the bacteria, are carried down with the gross sediment. A remarkable instance of the effect of an impure water-supply was well shown in the case of a severe epidemic of cholera at Messina, Sicily. Investigation having shown that this epidemic was due to direct pollution of the water by washing clothing in it, and by the contiguity of the unglazed sewers to the unglazed water mains, the people were supplied with pure water from another source, and

immediately the daily number of cases was reduced from 70 to 5. Observations in England have shown that about two weeks after a heavy rainfall there would be a sudden increase in the number of cases of typhoid fever. The lowness of the water, rather than the sudden rise, seemed to be the cause of the increase in the typhoid fever. In closing, the author considered the question of whether it paid to secure a pure water-supply. It should be remembered that most of the victims of typhoid fever were in the prime of life. After calculating the value of the life of an individual, and the time and money lost in the cases not proving fatal, the author came to the conclusion that typhoid fever caused an annual loss to the city of Albany of at least two hundred thousand dollars. Dr. LEWIS PILCHER, of Brooklyn, said that, in connection with the discussion of this paper, he desired to refer to a bill now before the Legislature, the object of which was to prohibit absolutely the cutting of ice from all rivers. This bill had been referred to the Committee of Hygiene of this society; and he wished to take this opportunity to report for that committee that in their opinion it was perfectly proper to cut ice from rivers under certain restrictions. This opinion was largely based on the well-known fact that running water purified itself.

Dr. A. JACOBI, of New York, in continuing the discussion of the paper of Dr. MASON, said that the society should be very careful about taking any action looking to the exclusion of river ice. There was certainly less danger from river water and river ice than many people supposed. It should be remembered that ice formed at the surface, and that during its formation the foreign matter contained in the water was constantly falling to the bottom.

Dr. V. R. MERRILL said that up to recently there had been very little rain in the Chemung Valley, but that, two weeks after the river had risen, 40 cases of typhoid fever had developed. Before this outbreak, some of the ice from the river had already been harvested. In view of the fact that three bacteriologists, from as many different cities, had found typhoid bacilli in this water, he thought it not improbable that this ice would also prove to be infected.

Dr. GRANVILLE said that he desired to contribute an anomaly to this discussion. There could be no question regarding the foul condition of the Passaic river water at the intake in Belleville; yet during the time that water-supply was low and foul, cases of typhoid fever were exceedingly rare in Jersey City.

Dr. MASON, in closing the discussion, said that there could be no question about ice being purer than the water from which it has formed, except in the case of artificial ice, which is frozen *en masse*. Sometimes the ice companies cut holes in the ice and flood the icefields; of course this ice is not purified.

Sepsis of the New-born.—Dr. M. A. CROCKETT, of Buffalo, read a paper with this title. He said that many cases of illness in the new-born were overlooked owing to the fact that these little ones were practically turned over to the care and supervision of the nurse instead of the physician. Another reason was that the first sign of disturbance was often a rise in temperature, not ordinarily detected except by the clinical thermometer. The chief paths of infection were the navel wound, the food, and inspiration. Acute dyspeptic diseases and general pneumonias were rare, and the prognosis was much more favorable than where there were gastro-intestinal disorders in connection with septic infection. In conclusion, the author reported three cases of sepsis in the new-born,

and described a form of aseptic dressing for the navel.

Dr. A. JACOBI said that the germs could gain access to the interior of the infant by several channels, viz.: the navel, the skin, the mouth, the arms. The aspiration of liquor amnii is a common source of infection.

Dr. CHARLES JEWETT, of Brooklyn, said that while undoubtedly there were various avenues of infection, he had not met with any case in which sepsis had gained access to the new-born in any other way than through the umbilicus. A rise of temperature of two or three degrees was common in the new-born, without the existence of any pathological condition. Of course the navel should be kept as aseptic as possible.

The Question of Puerperal Self-infection.—Dr. CHARLES JEWETT, of Brooklyn, read a paper on this subject. He said that a better title would be, "The relation of pus-producing germs, temporarily present in the pregnant woman, to child-bed sepsis." After quoting the practice and opinions of many prominent obstetricians, the author concluded that statistics showed a very slight advantage only in favor of a preliminary antiseptic douche at labor. But where careful comparative studies have been made in hospitals, as by LEOPOLD during a period of nearly ten years, it is evident that there is no good ground for the use of the ante-partum douche. The author also concludes that there is no clinical proof that puerperal infection can occur from normal vaginal secretions; that all child-bed infection in previously healthy women is by contact; that where an infecting discharge is present at the beginning of parturition, the vagina should be rendered as nearly sterile as possible.

A Medico-Legal Note.—Dr. A. WALTER SUITER, of Herkimer, presented under this heading a short account of a case of gun-shot wound in which he had given an impromptu opinion to the court to the effect that a bullet could not convey septic micro-organisms into the wound. This opinion was based on the belief that infectious substances would be removed mechanically, and that the heat produced by the friction of impact, together with the development of gases, would prove germicidal. His object in presenting this paper was to call attention to the fact that this *a-priori* opinion, although founded on well-established physical laws, had been disproved by the experiments of Dr. LAZARD, of the United States Army. This investigator found that when bullets infected with recent cultures of the anthrax bacillus were projected into animals the latter died with symptoms of anthrax infection, and that the anthrax bacilli were found in the blood.

AFTERNOON SESSION

Shall the State Attempt to Control the Spread of Tubercular Disease?—

Dr. J. L. HEFFRON, of Syracuse, said that in view of the fact that the total number of deaths from tuberculosis reported to the State Board of Health in 1895 was 13,330, and that the average for the past ten years has been over twelve thousand, the importance of restricting or preventing this disease is manifest. Modern science teaches that tuberculosis almost always arises from communication, and that it is a disease which can be largely restricted, if not altogether prevented. After discussing the various means employed in different places for the control of tuberculosis, the following measures were recommended: (1) The registration of every case of tuberculosis, under State law; (2) that circulars of information as to the communicability of the disease

and its sanitary care should be sent to the patients and their relatives; (3) instruction as to the nature of contagious and infectious diseases, and the practical methods of controlling them, should be given to the senior pupils in our grammar and high schools; (4) that those caring for places of public entertainment, and all public carriers, should be compelled to take adequate steps to prevent the spread of tuberculosis; (5) that the hopelessly ignorant and the vicious, affected with tuberculosis, should be isolated in special hospitals provided by the State.

Dr. A. JACOBI said that there were at least two million people sick with tuberculosis in the United States. In well-regulated *sanitaria* it had been found that about 13 per cent. of those sick with tuberculosis, if not in the last stage, would recover; and it had been the experience in many European countries that 28 per cent. could be sufficiently restored to health to admit of these people resuming their occupations; moreover the insurance companies of Europe had found that it was more profitable for them to establish *sanitaria*, and endeavor to keep alive such of their policyholders as had developed tuberculosis, than it was to allow these individuals to die, and compel them to pay the face value of the policies. From these facts it is evident that it is worth while for the State to make a great effort to control this terrible scourge.

Dr. E. L. BRUSH, of Mt. Vernon, said that his researches had taught him that the only people in the world who enjoyed immunity from tuberculosis were those who did not domesticate the cow. His idea was that, as the normal temperature of the cow is 102° F., it is necessary for the human subject to have a similar temperature in order to furnish a favorable condition for the development of tuberculosis.

Discussion on Early and Latent Syphilis in Infants and Young Children.—Dr. GEORGE T. ELLIOTT, of New York, opened the discussion, limiting the subject to *hereditary* syphilis. He said that, unlike syphilis in the adult, there was in infants neither a primary sore nor an early polyadenitis. The syphilitic infant was small and wizened; there were usually coryza and snuffles, with various cutaneous lesions. It may be well nourished, and remain so for a few weeks or months, and then suddenly die without having given any evidence of syphilis. More commonly it becomes emaciated and peevish after about three months. The cutaneous lesions are much the same as in acquired syphilis. Generally they are more hyperemic and diffused than when acquired. Gummatous and destructive lesions appear very early. The bulbous eruptions, particularly on the soles of the new-born infant, are quite characteristic of syphilis. They are often accompanied by an eruption of gummata. Simple pemphigus of the new-born appears from the second to the fourteenth day; it has no special localization, and does not affect the general health. It lasts for about fourteen days, appears in epidemic form and is unquestionably contagious. The pustular syphilide appears usually before the second month. The vesicular syphilide does not occur alone, and is located more especially about the mouth. The vesicles appear in groups, and show a tendency to coalesce, but nevertheless remain distinct. This latter feature distinguishes this eruption from moist patches of eczema. Condylomata at the corners of the mouth are very characteristic of syphilis. They are usually associated with mucous patches within the mouth. The papular syphilide is easily recognized by the paucity of desquamation, the localization on

the palms and soles, the copper color, and the accompanying mucous patches of the mouth, thus excluding psoriasis. It is possible that it may be confounded with *urticaria pigmentosa*, but the lesions of the latter become brown and pigmented; the disorder is essentially chronic and is uninfluenced by any known form of treatment. The bone lesions of early infancy are exceedingly diagnostic—the osteo-chondritis at the epiphyses of the long bones. Frequently these lesions are symmetrical, and are sometimes absorbed. Dactylitis is not diagnostic of syphilis; tubercular disease may present a very similar condition. After the first two or three years of inherited syphilis, the lesions do not differ from those of the acquired form. The general appearance of the patient, and the history, together with existing lesions, will enable one to make the diagnosis of acquired syphilis. Of the ocular changes reference was made to interstitial keratitis or iritis (the “ground-glass cornea”). The deafness of hereditary syphilis occurs suddenly, and is persistent, often without evident lesion. The growth of the teeth may be retarded, or there may be malformations in the *second* or *permanent* teeth. The lesion is symmetrical, occurs in the central incisors, and is characterized by a “notching” of the teeth.

Nervous Manifestations of Hereditary Syphilis.—Dr. B. SACHS, of New York, read a paper on this subject. This will appear in a later issue of the BULLETIN.

Dr. L. DUNCAN BULKLEY, of New York, opened the general discussion. He said that hereditary syphilis was not so commonly met with as formerly, owing to the profession having become better acquainted with its recognition and treatment, and more alive to its prevention. Syphilis in young children should be treated as early as possible, for the sake of both the infant and its attendants. LOURNIER's admonition should never be forgotten—“Nothing is so dangerous to its surroundings as a syphilitic child.” The speaker said that after long experience he felt that there was nothing better in the way of treatment than inunctions of mercurial ointment diluted about half, and applied under the bandage. But it should be remembered that this treatment should be continued for two or three years, and not stopped as soon as the symptoms improve or disappear. In conclusion he indorsed the old-time “mixed treatment,” given in wine of iron. The syrup of the iodide of iron was the best of remedies for infantile syphilis, but it should be freely pushed.

Dr. EDWARD D. FISHER, of New York, said that in the majority of cases cerebral hemiplegia was not due to hereditary syphilis, but to cerebral compression, or to meningeal or cerebral hemorrhage. Where a child of ten or twelve years suddenly developed optic atrophy or deafness, the history should be carefully investigated, as the case was probably due to hereditary syphilis. The speaker agreed with Dr. BULKLEY regarding the treatment, but preferred to give the iron separately from the iodide. In the late cases iron was not always indicated.

The Equilibrium Function of the Ear.—Dr. GAYLORD P. CLARK, of Syracuse, presented in a paper with this title the results of recent physiological investigation. The most important of these experiments were by Dr. LEE, of Columbia, on the dog-fish. The cartilaginous skull of this fish permits a careful and almost bloodless operation. The three important points noted were: (1) The motor effects accompanying rotation of the body of the uninjured fish; (2) the effects of gentle pressure on the external surface of the exposed but uninjured ampullæ; and (3) the effect of section of the ampullar

nerves just before their entrance into the membranous labyrinth. Thus, on turning the fish 45° to the left on its longitudinal axis, the eyes rotated in the opposite direction. Simultaneous stimulation of the ampullæ of two vertical canals on the left side produced the same movements of the eyes. Certain movements of the fins were also noted on such rotation of the fish; they tended to return the fish, when in the water, to the normal position. After section of the nerves passing to the ampullæ of two vertical canals on the left side, the eyes and fins moved as if the corresponding ampullæ on the opposite side had been stimulated. Apparently, therefore, sections of the nerve on one side cut off the normal impulses, and left the normal impulses on the other side unbalanced, giving the impression to the fish of being turned to one side. If, with the head of the dog-fish down, the fish were rotated on its transverse axis, the eyes and fins would move in an effort to return the fish to the normal resting position. Similar results to those already mentioned were obtained on stimulation or division of the ampullar nerves. When the fish was turned on its vertical axis the eyes and fins made corresponding movements, indicating an effort to restore the equilibrium. The speaker said that he had also collected a good deal of clinical evidence to the effect that the semi-circular canals in the human ear functionate in a similar way.

Diseases of Intra-uterine Life on the Part of the Mother.—Dr. EGBERT H. GRANDIN, of New York, said that experimentation on gravid animals, and occasional clinical observation, showed that most infectious diseases could be transmitted to the fetus. Variola is certainly so transmitted, for the fetus has been found pock-marked. Measles, scarlet fever, and remittent fever have been reported as having been transmitted from the mother to the fetus. In one case of the latter disease the mother felt a peculiar movement of the fetus as if it had a rigor. So far as known only one of these infectious diseases is not so transmitted—*i.e.*, anthrax. The mode of transmission, of course, is purely a matter of theory. The anatomical relations of the placenta preclude the direct transference of material. It is probable that the interchange of material occurs in the intervillous spaces which constitute the boundary line between the mother and fetus. This material may be nutrient or toxic, and the transmission is effected by transfusion or by the migration of leucocytes. The latter would seem to be the more probable method. This theory assumes that the placenta is unhealthy from the beginning, or becomes so in the course of its development, and that therefore the leucocytes cannot present an effectual barrier to the transmission of disease. It is highly probable that in the average woman conditions exist which indicate, at least, a slightly unhealthy condition in most placentæ.

Eclampsia.—Dr. P. W. VAN PEYMA, of Buffalo, present by invitation, read a paper with this title. The paper will appear in a later issue.

Medical Education of the Future.—Dr. CHARLES W. ELIOT, President of Harvard University, delivered an address on this subject. [See page 132.]

EVENING SESSION

The meeting was called to order at 7.45 p.m.

Tetanoid Hysteria.—Dr. GRACE PECKHAM MURRAY, of New York, said that hysteria was a protean disease, and that tetany was a manifestation of protean conditions, so much so that many recent writers had come to regard all cases of tetany as

manifestations of hysteria no matter how produced. By "tetany," was to be understood, spasms of intermittent character which during the intermissions may be produced by pressure over the principal nerve-trunks or blood-vessels of the parts. TROUSSEAU divides the disease into three varieties: benign, medium, and severe. The author reported a case belonging to each one of these varieties. The disease is rarely fatal, and when it is so, it is due to asphyxia from contractions of the respiratory muscles and the diaphragm. The writer thought that such a termination might be due to tonic contraction of the heart. The pathology of the subject is very obscure. The therapeutic measures usually recommended were stimulants—such as the aromatic spirits of ammonia—and applications of heat and cold; but the speaker said she had found that very minute doses of morphine were beneficial in all her cases.

Treatment of Malignant Disease in So-called Cancer Institutions.—Dr. NATHAN JACOBSON, of Syracuse, in a paper with this title, described the extravagant claims made by these institutions. Thus one well-known institution of this kind states in its circulars that the surgeon fails to cure 95 per cent. of cases of cancer, and that he does not know after operation whether or not he has removed all of the disease. A unique opportunity had presented itself to him for gaining an insight into the workings of one of these places. A patient, formerly under his care for carcinoma of the breast, was admitted to this institution in September, 1893. After the first "application," this patient suffered intensely for six hours or more, and similarly after the succeeding treatments. She underwent this torture for 14 months, and on November 5, 1894, was in such a weakened condition that she was carried out and transported home. At the time, her medical attendants at this cancer institution declared her to be entirely free from malignant disease, yet when seen by Dr. JACOBSON, six days later, there was extensive scar tissue over the mammary region, and midway between the mammary and axillary lines was an unhealed area. There were patches of dullness on this side of the chest, and the entire right lung was infiltrated. This patient died on December 14, 1894. After her death when she was placed in the supine position a large quantity of serum poured out of the chest from the unhealed area on the left side, which was found to open directly into the pleural cavity. The left lung was found to be filled with small secondary deposits, but at no place was there a direct extension inward from the surface, and there was no involvement of the ribs. The right lung was saturated with secondary growths. The interesting and valuable part of the paper was a table of statistics carefully and honestly compiled by the husband of the patient whose case has just been reported. He found 26 patients in this institution at the time his wife entered there. Of these 26 patients, 10 were dead at the time the cases were tabulated; 3 more had recurrences; and 7 believed themselves to be cured. Of the latter, 4 were noted as apparently trifling cases. This man had paid for professional services alone 50 dollars a week for these 14 months. The names and addresses of all these patients had been noted, so that every single case could be followed. Dr. L. D. BULKLEY and Dr. F. W. SHAFFER stated that their extensive experience entirely coincided with that described in the paper.

Alcoholism and Public Health.—Dr. H. R. HOPKINS, of Buffalo, said that about ten years ago a law was enacted demanding that in all of the public schools of this State physiology and hygiene should

be taught for a given time, with particular reference to the influence of alcohol, narcotics, and stimulants. This law was in operation for eight or ten years, but last year it was enlarged to a very considerable degree in two particular directions, viz.: (1) So as to embrace the teaching of the nature of alcoholics, stimulants, and narcotics, and the results of the use of these substances by human beings; and (2) that any of the common schools of this State failing to teach this subject for four hours a week and for ten weeks a year should thereby forfeit its proportion of the public-school fund. The speaker characterized this enactment as monstrous and vicious in the extreme. He especially called attention to the fact that the same body that had been instrumental in securing this bad and absurd legislation in this State had secured the passage of similar legislation in 40 other States.

Evolution of Pathology.—Dr. J. H. HUNT, of Brooklyn, in an address on this subject, freely illustrated with the lantern, described many of the noted characters in medical history who had aided particularly in the development of the science of pathology.

[End of first day.]

Second Day.—Wednesday, January 29

The meeting was called to order by the President at 9.30 a.m.

Resolutions.—Dr. L. DUNCAN BULKLEY, of New York, presented a resolution the object of which was to secure the passage of a bill by the Legislature which would place the so-called cancer institutions under the care of the State Board of Health, just as private institutions for the care of the insane are now under the care of the Commission of Lunacy. This resolution was carried.

A resolution was offered by Dr. A. W. SUITER, and adopted, instructing the Committee on Legislation to use all honorable effort to bring about a repeal or an essential modification of the law of our State relating to the compulsory teaching in the schools of the effects of alcoholics and narcotics.

A resolution was also adopted advocating the publication of the *Index Medicus* by the government.

Vaginal Hysterectomy by Clamps and without Ligatures.—Dr. W. E. LORD, of Utica, presented a paper on this subject. He expressed the opinion that most cases of cancer of the uterus, if operable at all, were more safely treated by the vaginal method. It was certainly not the elective operation in the majority of cases of suppurative disease of the tubes and ovaries. For small fibroids, growing rapidly or hemorrhagic in character, vaginal hysterectomy he considered to be the better operation. It is almost impossible in pus cases to apply many ligatures without rendering the patient liable to sepsis. Dr. JACOBS, of Brussels, claims that the vaginal operation, when done by his method and his special instruments, is safer than where ligatures are used, and in this opinion the speaker concurred.

The advantages were: (1) That the operation was quicker; (2) that the clamps were removed within 48 hours, so that collections of pus were drained; (3) it was claimed that the cicatrix was softer, that there were fewer foci of pus, and less hard tissue in which malignant disease might subsequently develop. The disadvantages were: (1) The inconvenience and discomfort of clamps in the vagina; (2) the danger of too free oozing into the vagina. The first objection, Dr. LORD said, he had found in actual practice to be exaggerated; but the second was certainly serious. He was con-

vinced that there would be less oozing if the cylindrical pledgets used abroad were employed, instead of the gauze packing.

He believed that the essential point in operating by this method was the skillful use of the special traction forceps and the stout scissors. The recovery after vaginal hysterectomy was much more rapid than after the abdominal operation.

Complications in Abdominal Surgery Requiring Intestinal Anastomosis, and the Best Operation.

Dr. A. VANDER VEER, of Albany, reported three desperate cases of intestinal surgery in which rapidity of operation was essential. The prolonged operation of intestinal anastomosis by the old method, he said, diminished the patient's chances of recovery. After hastily reviewing the various mechanical aids that had been suggested, he said that, with the exception of the Murphy button, none of these devices had been generally adopted by surgeons, with the exception, perhaps, of Abbé's catgut rings; but even these had now been discarded by their originator. The Murphy button is more appropriate for anastomosis of the small intestine, and particularly where the element of time is of great importance. The most scientific method of suturing, the speaker said, was probably Halsted's, although it had received very little indorsement from the profession at large. Much time, however, was consumed in all methods of intestinal suture. Mannsall's method of anastomosis really presented the most reasonable and successful line of procedure. Among the advantages that can be fairly claimed for the Murphy button are: (1) The coaptation of similar tissues; (2) the immediate formation of adhesions; (3) the rapidity of the method. In incised wounds, and *small* gun-shot wounds, the speaker considered that the best method of treatment was by the Lembert suture, without any mechanical device.

Sloughing of Uterine Fibroids after Abortion and Labor.

Dr. M. D. MANN, of Buffalo, presented a paper with this title. He said that while the larger number of cases of fibroids occurred in sterile women, pregnancy was occasionally seriously complicated by the presence of large fibroids. In the pregnant uterus, fibroids often grow with great rapidity. Dr. STAVELY had collected 597 cases in which nothing had been done until labor. Of these, 220, or 37 per cent., died. In another series of 548 cases, collected by the same person, 15 per cent. aborted, and in 307 of the cases in which the maternal mortality was noted the percentage of deaths was 12 per cent. This would warrant the general statement that interference was usually justified. The danger after operation came principally from distortion of the uterine canal, making it impossible to entirely clear out the placenta and membranes, and hence sepsis was particularly dangerous in fibroid tumors. After presenting a number of illustrative cases, the speaker said that in a case of fibroids, unless the symptoms subsided very promptly under douching and curetting, hysterectomy or myomectomy should be done at once.

Technique of the Improved Caesarian Section.

Dr. H. J. GARRIGUES, of New York, present by invitation, read a paper with this title. He said that if possible the operation should be performed toward the end of pregnancy, but before the beginning of labor. Four assistants were desirable, and the strictest antiseptic precautions should be taken. The bowels and bladder should be emptied, the vulva shaved and cleansed, and the vagina thoroughly disinfected by the free use of tincture of green soap and of sublimate irrigation. The instruments should be

sterilized by heat. The patient should be in the dorsal position. By percussion the operator satisfies himself that no knuckle of intestine lies in front of the uterus. The incision should be made in the median line, half above and half below the umbilicus, just enough to admit of turning out the uterus—about six or seven inches. The right hand is now introduced into the abdominal cavity and used to turn out the uterus, seizing it in the region of the left cornu. The upper part of the incision is closed with three or four silk sutures, one inch apart, and going through the whole wall. A rubber tube is placed loosely around the cervix and broad ligament, and crossed, but not tied. The uterus is enveloped in a sterilized hot cloth, and dry pads are placed front and behind with gutta-percha tissue. The elastic constrictor is now tightened, and the uterus is incised in the median line and the bleeding sinuses clamped. The left index-finger is then inserted and the incision extended with scissors or probe-pointed bistoury, carefully avoiding the lower uterine segment, where there are large veins and much less contraction than in the body of the organ. This incision should be 4 to 5½ inches in length. If the placenta is inserted on the anterior wall, the incision is carried through. If the waters have not broken, the operator tears the ovum on its anterior surface; if the ovum has already ruptured, the head of the child is, if possible, delivered first, so as to prevent the danger of the uterus contracting in front of it. If this is not easily done, the operator seizes an extremity and pulls the child out of the uterus. The cord is tied immediately with a double ligature, and then is cut between the ligatures. If the placenta is still adherent, it is to be left alone while the uterine sutures are inserted. If it still remains adherent, the placenta is to be peeled off with the membranes. If the operation has been performed before dilatation of the cervix, this should now be effected manually in order to secure free drainage. For the deep sutures No. 4 silk should be used, and No. 2 for the superficial ones. The deep sutures should be inserted, half an inch from the edge, through the peritoneal and muscular layers. It is better to keep the peritoneum outside of the muscular layer. The superficial sutures should be inserted through the peritoneal layer, half an inch from the edge, in such a way as to apply broad surfaces to each other. After the removal of the placenta the interior of the uterus is simply wiped dry and the clots removed. No antiseptics are needed, and the uterus should not be curetted. After the tying of all ligatures, the elastic constrictor should be very gradually loosened. After all hemorrhage had ceased, the uterus should be replaced and the abdominal wound closed as after other laparotomies. The wound should be dusted with iodoform, and dressed with iodoform gauze, gutta-percha tissue, sterilized gauze, and absorbent cotton held in place by broad strips of adhesive plaster and a many-tailed bandage. The bowels are moved on the third day, and the antiseptic dressing is changed in a week. The sutures are removed on the eighth day. The patient is allowed up at the end of three weeks. As a rule, the speaker said, the appendages should not be removed, as repeated Cæsarian section gave even a better prognosis than the first operation. The speaker closed with the statement that when he had done his first operation he had not been aware that either LEOPOLD or SÄNGER had done this operation.

Dr. W. GILL WYLIE opened the general discussion. He said that it was better, in his opinion, to have 10 per cent. of ventral hernia and 25 per cent. re-

main in bed for many weeks, than to have an increase of 1 per cent. in the mortality and a quicker convalescence. In his 105 vaginal operations, he had had good results and only one fatality, but this he explained by the fact that 75 per cent. were selected cases—mostly cancer. The vaginal operation did not seem to him to admit of such thorough surgery or such accurate diagnosis as was possible by the abdominal operation.

Dr. HERMAN J. BOLDT, of New York, said that total extirpation of the pelvic organs should only be done when there were recurrent pelvic inflammations and abscesses. In these cases ligatures were entirely out of the question, for the uterus is too high and too firmly fixed. It was not necessary to leave the clamps longer than 24 hours. It seemed to him very bad surgery to operate upon cases of carcinomatous uteri in which it was impossible to operate in healthy tissue.

Dr. M. D. MANN, speaking of operations on the intestine, said that while he had had fair success with the Murphy button, he preferred intestinal suture. He was in the habit of taking four stitches of continuous suture at a time, then interrupting it and tying it. This method was both safe and time-saving. Regarding vaginal hysterectomy, he expressed his admiration for this operation, which he thought had a bright future. The great danger, however, of intestinal fistula from the vaginal operation fully compensated for the ventral hernia claimed as a serious objection to the abdominal operation.

Dr. W. G. MACDONALD, of Albany, said that instead of pulling down the uterus he preferred to pass a hook around the broad ligament and pull it down. The ligament thus broadened and thickened could be readily grasped by a specially devised forceps or clamp.

Dr. A. H. GOELET, of New York, said that he thought the popularity of vaginal hysterectomy depended entirely upon its novelty. For the vaginal operation it was claimed that the shock was less, the convalescence quicker, and that there was freedom from an abdominal scar. On the other hand, perfect asepsis was difficult to secure, the operation was liable to be incomplete; the field of operation was limited, the viscera and the ureters were more liable to be injured, the hemorrhage was more difficult to control, diagnosis was not so easy as by the abdominal route, there was greater danger of fistula, and extensive adhesions more often rendered this operation impossible than in the case of abdominal section.

Dr. J. RIDDLE GOFFE, of New York, said that if the ovaries and tubes were hopelessly diseased, the uterus was no longer of use and would better be removed. This did not add to the mortality. He had met with two recent cases in which the appendages had been removed through Douglas's pouch, and the uterus left behind. These patients had come to him shortly after operation with symptoms of infection, and examination had shown the uterus in each case to be full of pus. The use of clamps or ligatures he regarded as largely a matter of individual choice.

Dr. A. T. BRISTOW said that in urgent cases, like the one of strangulated hernia reported in Dr. VANDER VEER's paper, the time occupied in operating seemed to him to be all-important. All the methods of direct suture he believed required the utmost expertness and consumed much time—two objections which did not apply to methods in which mechanical aids were employed.

Dr. B. FARQUHAR CURTIS, of New York, said that

we must sharply distinguish between the emergency cases and others. The former absolutely required a more rapid method than that by suture, and for such cases the Murphy button was the best solution of the difficulty. The principal danger connected with that method was the liability of the button to fall in the wrong way. Another difficulty was that if there were adhesions or other causes of obstruction below the point of operation, the button might be permanently caught at such point.

Dr. FORD, in closing, protested against the use of the expression "useless uterus," for he did not believe it was necessary to remove uteri as freely as was done abroad. There, he had seen fully half a bushel of human uteri which had been extirpated, which were to all appearances free from disease.

Dr. VANDER VEER, in closing, said that he had been particularly impressed with Dr. MANN's paper, because many general practitioners failed to appreciate the importance of fibroids as a complication of pregnancy. Many of these patients died, and the death certificate was signed "puerperal sepsis" without the attending physician having even suspected the true cause of the sepsis.

Early Diagnosis of Tubercular Kidney.—Dr. WILLY MEYER, of New York, in a paper with this title, referred to the fact that there was now proof of the comparatively frequent entrance of the tubercle bacilli with gonococci into the urethra, and the consequent primary infection of the prostate or epididymis. As a matter of fact, it was known that gonorrhea often preceded primary tuberculosis of the prostate or of the epididymis. Among the first symptoms of tuberculosis of the kidney was renal colic, and if at this time the urine were carefully examined for tubercle bacilli a correct diagnosis would probably be made. If the cystoscope were called to our aid at this time, it would, in many instances at least, show a highly characteristic injection about the mouth of one ureter. If these diagnostic methods should fail, recourse might be had to the injection of some of the urinary sediment into animals. Kelly's method of catheterizing the ureters was to be recommended for the female, while in Casper's uretoscope we had a valuable diagnostic aid for use in either sex. By a timely and accurate diagnosis, followed by the prompt extirpation of the tubercular kidney, not only could a positive cure be obtained, but the patient would be saved years of illness and suffering.

Symptoms and Diagnosis of the Indigestion of Starchy Foods.—Dr. REYNOLD WILCOX, of New York, read a paper on this subject, in which he drew attention to the fact that a great deal of "buccal dyspepsia" was due to imperfect mastication and to the taking of quantities of fluids into the mouth along with amylaceous food. Such patients could be greatly relieved by the avoidance of these two causes, together with limiting the amount of starchy food. It was well known that starches were digested in the mouth, stomach, and intestine. The digestion of these food-stuffs may continue in the stomach for half an hour or more. If much acid fluid is discharged from the pylorus it will seriously interfere with the digestion of starchy foods in the intestine. The ptomaines resulting from the imperfect digestion of starchy foods are almost as noxious as are those resulting from proteid indigestion. Intestinal putrefaction may be indicated by the presence of indican in the urine. The diagnosis rests upon the positive evidence of constipation, flatulence, sensory phenomena, and general constitutional disturbance, and on the negative evidence furnished

by the ratio of the ethereal sulphates and the quantity of indican.

Dr. BULKLEY said that he wished to emphasize the points made regarding hasty mastication and the drinking of fluids with food. Thirst could be quenched and the salivary glands made to act well by giving hot water half an hour before eating, and then there need be no occasion for taking fluids with the food.

AFTERNOON SESSION

Congenital Dislocation of the Hip, with Exhibition of a Case Successfully Operated.—Dr. T. HALSTED MYERS, of New York, contributed a paper with this title. The paper will appear in a later issue.

Discussion: Present Status of Brain Surgery.—Dr. EDWARD D. FISHER, of New York, opened the discussion. He said that experience had shown that the brain could be extensively manipulated, and even ablated, without great danger to life. The indications for operation were: (1) Traumatism; (2) localized epileptic seizures; (3) athetosis, with or without epilepsy; (4) tumors; (5) abscess; (6) cerebral hemorrhage, especially meningeal; and (7) microcephalus. Statistics indicated that only a small proportion were benefited, but one successful case should have much greater weight in indorsing the operation than many failures, provided it be founded on a rational, scientific basis. In cases of athetosis due to cortex irritation, removal of the cortex was indicated, the operation offering the only doorway of relief to those almost hopeless cases. The same argument applied to operations on tumors of the brain. In cases of tumor he preferred the removal of the bone by the *tréphine rougeur* rather than the bone-flap operation. It had been claimed by some that the use of the chisel produced great shock. He had been unable to observe any change in the pulse coincident with the blows of the hammer, although in every cerebral operation the pulse grows successively weaker during its progress. The operation should always be complete.

Brain Tumors.—Dr. M. ALLEN STARR, of New York, discussed this phase of the subject. He said that recent experience seemed to show that only 7 per cent. of tumors of the brain were suitable for operation. The great obstacles were the difficulty of accurately locating the tumors, and of reaching them after they had been localized. Anything that diminished the intracranial tension gave temporary relief; hence, trephining was justifiable.

One general symptom of brain tumor not very generally known, but pointed out by MACEWEN, was the change in the percussion-note elicited by auscultatory percussion of the skull. This his own experience had confirmed. According to HORSELY, there is often tenderness to pressure over the tumor when there is no tenderness to percussion. The nature of the tumor could not be definitely determined until the tumor had been exposed. It was only when the tumor was small and lay on, but did not invade, the cortex that the prognosis was absolutely good. In a series of 162 operations, no tumor was found in 48; it was found but not removed in 7; in 35 the tumor was removed and the patient died; and in 72 the tumor was removed and the patient recovered. The most favorable cases were those in which the tumor was situated in the motor area. The speaker expressed the opinion that in the future the prognosis of cases of brain tumor would improve. It was best in cases of sarcoma. Cysts showed a strong tendency to return. In conclusion he recommended the flap operation in preference to trephining,

and stated that these operations should only be done by those who had had considerable experience in this special field of surgery.

Craniectomy for Imbecility and Epilepsy.—Dr. CHARLES L. DANA, of New York, continued the discussion with a paper having the above title. Out of 70 cases that he had collected 29 had been improved, 19 were unimproved, and 22 had died. Including the older cases, which did not represent the surgery of the present time, he found that out of 22 cases 6 had been improved, 10 were unimproved, and 6 died. This agreed with his own personal experience, where out of 14 cases 3 were improved, 8 were not improved, and 3 died. Two classes appeared to be suitable for operation, viz.: (1) the congenital idiots, and (2) those having less marked mental and bodily defects—in other words, imbeciles rather than idiots. In the first class the defect was due to some disturbance of the brain before birth, and not to any accident, such as hemorrhage, embolism, or trauma, after birth. Usually these patients were microcephalic. In the second class several patients who had presented striking novel defects had been reported to have been improved by operation. In the first class the operation should be done before the fourth year of life; in the second class it may be done up to the age of puberty. These cases are never cured, but are sometimes improved, both mentally and physically. The usual operation was a linear craniectomy with lateral branches. The groove should be a wide one. The results did not always appear before the lapse of a number of months. His theory of the operation was that it had a profoundly disciplinary effect upon the idiot.

The Surgical Treatment of Epilepsy.—Dr. B. SACHS, of New York, presented a paper on the above topic, which, in his absence, was read by Dr. JOSEPH COLLINS. The author stated that not one-third as many cases of epilepsy were operated upon in New York city last year as in each of the years immediately preceding. Surgical interference, whether trephining or excision of cortical matter, was only justifiable in the earlier stages before degeneration had begun—indeed, it might be said that “the only way to cure epilepsy is to prevent it.” Even though the outer table of the skull were found intact at operation, it was well to proceed with the trephining as an exostosis or a spicule of bone might be found within. Moreover, young children do not stand operations on the skull as well as older subjects, and this distinctly limits the operations undertaken for the relief of the birth palsies.

Craniectomy.—Dr. JAMES W. PUTNAM, of Buffalo, said that the operation of craniectomy was originally undertaken with the idea that the resulting enlargement of the skull would give more room for brain growth, and so prove beneficial, but this theory had been disproved. Two cases operated upon by Dr. PARK had shown very marked improvement. One of these cases was a microcephalic idiot. It was not to be denied that the death-rate from this operation was large, but it should be remembered that in the event of the death of the patient, society had not lost a valuable citizen, and his family had been relieved of a great burden.

Dr. GEO. W. WOOLSEY, of New York, in continuing the discussion said that most of the cases of epilepsy on which he had operated had been of traumatic origin, but of six traumatic cases four had received a sufficiently severe injury to produce fracture of the skull, and the epileptic attacks had begun within a few weeks or months. All kinds of medical treatment had been tried for a considerable

time in every one of these cases, and there had been a progressive decline in the mental condition. In two cases epilepsy had been associated with imbecility, and in both there had been partial recovery of the function of the upper extremity. The results of the eight operations had not been favorable, for only one case could be strictly said to have been cured. Regarding the technique, the speaker said that the bone-flap operation should be performed, and the best form of chisel for such operations was that used by carvers, only it was important that these chisels should be ground, not as ordinarily done, on the outside, but upon their upper surface. The inner table should be cut through at both ends of the incision, otherwise the hinge would not break smoothly across. The bone flap heals beautifully. These cases taught an important lesson in prevention, viz.: the necessity for careful and thorough treatment at the outset of all fractures of the skull.

Heteroplasty with Celluloid to Cover Defects in the Skull.—Dr. WILLY MEYER, of New York, by invitation, presented a paper on this subject. He said that gold-foil, aluminum, rubber, etc., had been used for heteroplasty, but the latest material introduced was celluloid. He had used this substance in two cases in 1894. The first case was in a boy, and the result was excellent. The second case occurred in a man who, shortly after a fall on the head, began to have epileptic seizures. He remained well for six years, or until January, 1894, when he was seized with severe epileptic fits. At operation, the *dura mater* had been found adherent to the skull, and a portion of the brain protruding into the original trephine-opening made at the time of the fracture. A very thin piece of celluloid had been inserted, and primary union secured. He returned a few months later, stating that he still had epilepsy. A second operation was performed and the plate removed. More bone was then chiseled away and another and stouter piece of celluloid inserted. The man had improved, but was not yet well. These plates of celluloid could now be obtained from the New York Celluloid Company.

Dr. JOSEPH COLLINS, of New York, in opening the general discussion, expressed the belief that the preceding speakers were not warranted in so greatly narrowing the field of brain surgery. In brain abscess, or in purulent infiltration of the brain, surgery alone was of avail. It should be ever borne in mind that chronic purulent otitis produces at least 35 per cent. of the cases of brain abscess.

Dr. FLOYD S. CREGO, of Buffalo, said that he preferred to take a middle ground. In all cases of epilepsy if the lesion could be localized the operation was justifiable. He was positive that the experience of the Buffalo surgeons had not been so discouraging as had that of the surgeons of New York city. He had always supposed that the craniectomy was done with the object of improving the nutrition of the brain. He felt that a common and serious error among surgeons had been the neglect of medical treatment after operation. In his own practice he had always insisted upon medical treatment for a period of two years after the operation.

Dr. E. B. ANGEL said that a few years ago he had reported to the Society a case of trephining for epilepsy, and called attention to the needlessness of inserting any tissue or plate to fill in the trephine opening, because sufficient dense fibrous tissue formed to amply protect the brain. He had followed the plan of doing two partial operations instead of one operation, and the results had been very good.

Treatment of Sciatica.—Dr. W. C. KRAUSS, of Buffalo, in a paper on this subject, reported seven cases in which marked benefit had followed the use of nitroglycerine, when given in doses of one minim or more, three times a day. If the remedy caused, as it occasionally did, troublesome congestive headache or flushings of the face, these could be counteracted by the administration of the bromides. The treatment should be persisted in for a week or two before abandoning it in favor of other measures. The author did not claim that it would cure every case of sciatica, but that it had proved beneficial in a fair percentage of them, and was entitled to first consideration in the selection of remedies.

Address: "Deficient Excretion from Kidneys, not Organically Diseased, in Relation to Some of the Disorders Peculiar to Women."—Prof. JAMES ETHERIDGE, of Chicago, delivered this address: He said that toxic substances in the human body were constantly struggling with the emunctories for supremacy. The chief sources of auto-infection were the tissues, the secreting organs, the food and putrefactions—even the blood was toxic. Very many gynecological patients suffered from renal insufficiency, and hence, remedies directed to the relief of this condition, often relieved the symptoms commonly referred to pelvic disease or irritation. The proportion of urinary solids to the body weight is fairly constant. If it falls below 20 per cent. of the normal standard, it may be said that there is renal insufficiency. The total daily quantity of urinary solids varies with the body weight practically between the extremes of 500 and 1100 grn. The best every-day working formula for determining the daily quantity of urinary solids was as follows: Multiply the last two figures of the specific gravity of the urine by the number of ounces of urine voided in the 24 hours, and this product by 1.1.

Renal insufficiency, the speaker said, was extremely common. Urinary solids were a lethal poison when retained in sufficient quantity. The diurnal urine had been found to be relatively less toxic than that excreted at night; the former would produce convulsions, the latter coma. Urea constitutes one-half to one-eighth of the total toxicity of the urine, the coloring and other agents removed by charcoal filtration, constitute about half of the toxicity of the urine. The mineral substances constitute the remaining one-third of the total toxicity of the urine. The chloride of potassium is the most poisonous of this class. Urinary poisoning shows itself chiefly in its action on the nervous system. Lithia and small doses of mercury quickly remove the neuralgias originating from this form of toxemia. It is a simple clinical fact that the administration of stimulating diuretics is a most important factor in the treatment of cases of parametritis. It is not at all uncommon to meet with women who are passing only 50 per cent. of the normal quantity of urinary solids.

Dr. L. D. BULKLEY said that many years ago, while treating cases of skin disease by remedies calculated to stimulate the emunctories, particularly the kidneys, he had gradually become aware of the fact that this treatment exerted a marked influence on the menstrual function.

EVENING SESSION

Anniversary Address by the President: "The Value of the Comparative Method in the Study of Pathology."—Dr. ROSWELL PARK, the President, delivered an address on this subject in the

Senate Chamber. He said that he desired to enter a plea for a further extension of the methods of comparative study in the investigation of disease, and departure from the normal standard—a plea for the same methods, in other words, as are now so effectively employed in the study of the languages. In the first place, every organized being is a republic of cells, and hence, cellular disturbance at one point is sure to affect to greater or less extent the entire organism. In his estimation, METSCHNIKOFF, more than any other living man, had made that fundamental process known as "inflammation" clear, simply because he began to study it in the lowest forms of living beings. It would be better to go still further, the speaker said, and study the beginning of all pathological and physiological processes in the vegetable kingdom first. One law of cellular pathology appears to be never violated—*i.e.*, that the derivative of one germ layer never by any chance develops a structure originally derived from another—and consequently, after the development of the blastodermic membranes, no wholly indefinite cells are formed. In the higher organisms certain cells never attain high development, but remain always in a lowly-organized condition and serve either as germs for reproducing the entire individual, or for forming and maintaining various tissues and organs. Such cells are, according to WILLIAMS, the only real cancer or tumor germs. In plants and animals alike, the process of repair and the neoplastic tendency are closely allied, differing only in degree. The formation of tumors in trees is a subject of very great interest. So-called "cancers" of plants usually form around the sites of previous injury. It has been found that trees inoculated with cancerous sprouts become themselves cancerous. For the cellular pathologist, a tumor in an animal or upon a tree is practically the same. Malignancy of tumor formation is largely a process of cell-degeneration and incompetence. In benign tumors, reproduction of cells is fairly orderly, but it is not in harmony with the demands of the rest of the system. True cancer occurs most often in tissue which has outlived its usefulness. Among the most remarkable phenomena pertaining to cells is the peculiar tendency to reappearance of traits and qualities peculiar to remote ancestors, and quite out of keeping with cells in their present locations. Very early in embryonic life the dura and the skin are in contact, while the basal and lateral portions of the cranium gradually chondrify, thus separating these two structures.

The speaker, after considering at some length some of the *vestigia* found in the human subject, as well as some examples of reversion or atavism, passed to the consideration of some of the practical illustrations of the bearing of evolution upon pathology. The wisdom teeth are to be regarded as reversions to a form of ancestors having a jaw long enough to contain more teeth—at least five or six molars. The well-known characteristics of so-called Potts's fracture of the fibula have been shown to be largely due to the fact that this bone is a rapidly disappearing relic, and, in fact, has already completely disappeared in many of the lower animals. The most common form of club-foot is equinovarus—the normal position of the foot in the embryo up to the seventh month, and of many of the quadrumana throughout their lives. Again, eczema is by no means confined to the human skin, being one of the common heritages of nearly all living surface tissues.

In conclusion, the speaker expressed the

hope that the few isolated examples that he had given would serve to show the importance of such comparative study, and the desirability of the formation of a society in which should meet on common ground: Botanists, agriculturists, vegetable pathologists, biologists, zoölogists, veterinarians, and human pathologists. There was also a crying need for a carefully prepared work on comparative pathology. Such a work was not to be found at the present day.

[End of second day.]

Third Day.—Thursday, January 30

Election of Officers.—The following officers of the society were elected for the ensuing year: President, Dr. JAMES D. SPENCER, of Watertown; vice-president, Dr. L. DUNCAN BULKLEY, of New York; secretary, Dr. F. C. CURTIS, of Albany; treasurer, Dr. CHARLES H. PORTER, of Albany.

Reorganization of the Coroner's System.—Dr. W. G. MACDONALD, of Albany, in a paper on this subject, said that the coroner's system took its origin largely from the Constitutional Convention of 1848, but the system had proved unsatisfactory in many respects. It had cost the State of New York over \$300,000 annually. The new plan, which he would advocate, is known as the "German System," and was established by Professor VIRCHOW. The country was divided into districts, each one having a district physician, a district surgeon, and a district judge. Any one of these officers may be primarily called to make an investigation, but if an inquest is required the other two are notified, and all three conduct the inquiry, the judge attending to the legal part. To remedy our present system the author suggested the abolition of coroners and their deputies, and the creation of a "medico-legal officer" who, to be removed as far as possible from politics, should be appointed by the Appellate Division of the Supreme Court. The term of office should be a reasonably long one—say five to seven years. This officer, or medical examiner, should be thoroughly competent to perform all the *medical* duties of the position; the legal portion should be conducted by the ordinary machinery of the law.

Dr. R. A. WITTHAUS fully concurred in the statements and suggestions. Where such a medical officer was called upon to testify in court, being an appointee of the court he would be looked upon as a judicial officer, and the effect of his testimony would be very different from what it is at present. The number of these medical examiners should be as small as is compatible with a thorough and conscientious performance of the duties of the office.

Dr. WITTHAUS, as a committee of one appointed by the Society to confer with the Committee on Legislation and with the Committee of the Bar Association, then presented his report. He stated that the bill presented to the legislature a year ago had been so loaded down with undesirable amendments that it had been deemed best not to urge the passage of the bill that had been prepared, and the object of which was the reorganization of the coroner system. He thought that a proper bill would be passed by the present Legislature, if it had the support of the associations representing the medical and legal professions of the State.

Dr. BALCH, of Albany, said that the new system had been found satisfactory in Massachusetts and Rhode Island. By our present system there were frequent miscarriages of justice, and moreover much valuable medico-legal information was lost.

The Hon. TRACY C. BECKER, of Buffalo, spoke of his efforts to secure the co-operation of the legal profession in this matter, which so deeply interested both professions, and expressed the belief that this was a particularly opportune time, as the present legislature, in his opinion, was one of the best that had ever sat in this State.

At the suggestion of Dr. BENDELL, of Albany, the President was requested to appoint a large auxiliary committee, the idea being that in this way a stronger influence could be brought to bear upon the legislature.

Development of Muscular Atrophy on a Basis of Old Infantile Spinal Paralysis—a Favorable Type.

—Dr. W. BROWNING, of Brooklyn, in a paper on this subject, related the results of his experience with such cases, and drew the following conclusions: (1) Infantile paralysis is sometimes followed by further atrophy at a later period; (2) the assumption that it is due to extension of cord trouble cannot be accepted, save in a small number of cases; (3) in the young, some other peripheral trouble is active; and (4) disuse, poor nutrition of the part, and exposure to cold are prominent factors.

"Neuritis Complicating Dislocations of the Shoulder and Elbow."—Dr. M. A. VEEDER, of Lyons, presented a paper on this topic. The paper will appear in a later issue.

Difficult Perineal and Suprapubic Lithotomy.—Dr. W. HAILES, of Albany, read the clinical histories of two difficult cases of this kind.

Notes on Trachoma.—Dr. M. F. FOSTER, of New York, in a paper with this title, referred to some of the important features of trachoma. He objected to the word "granulations": (1) because these conjunctival projections are not granulations; (2) because the word is used by some to denote papillary projections; and (3) because it perpetuates the use of the term "granular lids"—a term which has long since lost any definite meaning. Unfortunately, many believed that "granular lids" were incurable, and hence many patients neglected to seek proper advice. He preferred the use of the word "follicular," rather than "granular," to designate the first stage of trachoma. Trachoma, he said, is characterized by pale, semi-translucent bodies on the conjunctiva. This stage was followed by congestion and hypertrophy and the production of a velvety appearance. The pure papillary form was not as commonly observed as "the mixed form" just described. Subsequently the disease was transformed into cicatricial tissue, accompanied by cicatricial contraction and deformity. As yet nothing definite was known about the supposed microbic origin of trachoma.

Papers Read by Title.—The following papers were read by title: "Serum Therapy," by Dr. E. H. WILSON, of Brooklyn; "The Pathology of Infantile Syphilis," by Dr. ERNEST WENDE, of Buffalo; "Scorbutus in Infants," by Dr. H. S. MACLEAN, of Brooklyn; "Abdominal or Vaginal Celiotomy—Which?" by Dr. J. W. WHITBECK, of Rochester; "Some Rare Complications of Appendicitis," by Dr. HERMAN MYNTER, of Buffalo; "Surgery of the Skull," by Dr. SENECA D. POWELL, of New York; "Destructive Fractures of Railroad Surgery," by Dr. R. S. HARNDEN, of Waverly; "Diabetes and Acetonuria in Children," by Dr. W. S. CHEESMAN, of Auburn; "Value of Animal Extracts in the Treatment of Nervous and Mental Disease," by Dr. LLOYD S. CREGO, of Buffalo; "The Surgical Treatment of Retroversions and Retroflexions, with Special Reference to Vaginal Fixation," by Dr. H. N. VINEBERG, of New

York; "Treatment of Aspiration Pneumonia by Drainage by Inversion," by Dr. W. W. SEYMOUR, of Troy; "Abscess of the Frontal Sinus," by Dr. J. P. CREVELING, of Auburn; "Second Report on a Case of Functional Albuminuria," by Dr. ELI H. LONG, of Buffalo; "How to Prevent River and Stream Pollution," by Dr. THOS. E. SATTERTHWAITE, of New York; "Inquiries Relating to the Comparative Value of Expectorants and Cough Remedies," by Dr. J. K. CROOK, of New York; "Dislocations of the Patella, and a Medicine for its Relief," by Dr. A. M. PHELPS, of New York; "Surgical Treatment of Retro-deviations of the Uterus," by Dr. A. H. GOELET, of New York; "A Case of Nephrectomy, with Some Interesting Features," by Dr. C. W. TOWNSEND, of New Brighton; and "Intubation in the Treatment of Chronic Laryngeal Stenosis," by Dr. J. O. ROE, of Rochester.

Attendance.—The register showed that 224 delegates and permanent members and 45 invited guests had attended this meeting—a larger attendance than for several years.

BOOK REVIEWS

Practical Dietetics, with Special Reference to Diet in Disease.—By W. GILMAN THOMPSON, M.D., Professor of Materia Medica, Therapeutics and Clinical Medicine in the University of the City of New York, etc.—8vo, pp. XXII + 802.—New York: D. Appleton & Co.; 1895.

This is the first book of its kind that has been written by an American author in some time. Most of the works on dietetics that have appeared in recent years have been written by English or Continental writers. Many have been the inquiries for such a work, as none in the market was satisfactory. In this work of Dr. THOMPSON there is brought together, in compact form, a large fund of valuable *data* relative to the composition and nutritive value of the various food-stuffs and food-products that are commonly found in the market at the present time.

The work is primarily divided into nine distinct parts and an appendix. Part I discusses fully the food-stuffs in general, including their preparation. In this section they are further subdivided and analyzed according to their constituents, and the action that the different elements may have upon the physiological economy. The part devoted to water is very full and complete; the same is true of the salts, and of the proteids, carbohydrates, and fats. The *data* in relation to milk are also exceptionally good. The relative values of the different kinds of food-stuffs are clearly elucidated.

Part II deals with stimulants, beverages, and condiments. The physiological action of alcohol is quite extensively discussed; its good and bad effects upon the system are fully brought out in their true light.

Part III is devoted to the cooking of food, preparation and preservation of food, and the amount required daily.

Part IV discusses food in relation to special con-

ditions, such as childhood, the adult period, old age, size, weight, sex, etc.

Part V is devoted to the consideration of the digestibility of food, and the agents which may be used to increase its digestibility. In this chapter considerable attention is given to the physiology of digestion and the use of artificial ferments.

Part VI is devoted to the general relation of food to special diseases, and to those diseases that are directly traceable to dietetic errors. This chapter is divided into 10 sections, such as: insufficient food, overeating and drinking, unwholesome food, food containing parasites, food containing ptomaines, food containing other poisons than ptomaines, food adulteration, food containing micro-organisms, idiosyncrasies in regard to food, and alcohol-poisoning.

Part VII gives details as to the administration of food to the sick. The various ways that can be employed for feeding the sick, as by the mouth, in various palatable states, predigested or otherwise, by the nutrient enemata, the food suppository, inunction foods, intervascular and hypodermatic feeding. While all this is very interesting reading, we cannot help feeling that it is in a measure misleading, for it develops the idea that these abnormal methods are quite satisfactory methods for feeding when the stomach is not available. The rules in general in this section are good.

Part VIII is devoted to the study, the rules, and regulation of the diet in disease. This section is divided into the diet in the infectious diseases, of the respiratory system, of the circulatory system and blood, the urinary system, the alimentary canal, intestines, liver, nervous system, diseases of the skin. Then comes a rather large section of something like one hundred pages discussing the diseases that are especially influenced by dirt, such as obesity, rheumatism, gout, diabetics, etc.

Part IX gives a large number of dietaries, etc.

The book, taken as a whole, is far in advance of any of its kind that have recently appeared, and will be found of great value in the dietetic treatment of disease.

Doctors' Exchange

In each issue of the AMERICAN MEDICO-SURGICAL BULLETIN certain columns are set aside as a "Doctors' Exchange." Under this caption will be published, *free of charge*, announcements relating to personal wants of all connected with the medical profession.

A physician who wants to buy or sell a practice will do well to make an offer here.

A physician who desires an assistant in special lines or general practice has here an opportunity of addressing a large number of bright, young physicians.

A physician who needs certain books, instruments, or specimens has the privilege of making known his wants here.

A physician who wishes to exchange books, instruments, or other personal property will very likely hear of a satisfactory offer through this department, free of charge. Open to all connected with the medical profession.

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NEW YORK, FEBRUARY 8, 1896

No. 6

NEEDED REFORMS: ABOLITION OF THE CORONER SYSTEM; A MEDICAL MAN AT THE HEAD OF THE BOARD OF HEALTH

THE outlook is more than a fair one that this year the Legislature of the State will take the requisite steps toward abolishing the office of coroner and substituting a system more in accordance with this enlightened age. The example set by Massachusetts nearly 15 years ago might well have been followed in this State; but political influence and disregard of the advice frequently given by the medical and the legal professions have so far been the rule at Albany. The system at present in vogue is a disgrace to the State and to the country at large. The wheels of justice are far too frequently blocked by the mismanagement of men who, too often, are little less than blockheads, or, at any rate, do not possess in the least the judicial mind that a legal officer must possess in order to be at all worthy of the title. The system that Massachusetts has tested for so long has borne fruit of the ripest kind; and it is this system, practically, that it will be the endeavor of the earnest men of both professions, working for the good of the Commonwealth's fair name, to pass through the Legislature.

The same gentlemen, or others, might also try to cause the removal from the statute-books of the clause that prevents a medical man from becoming the President of the Board of Health of the city of New York. Aside from the unconstitutional nature of this clause, there are many reasons why a man trained in matters medical should be better able to oversee the sanitation of this city, and thus indirectly, that of the whole country, than can a

layman. The latter might possess, occasionally, more executive—more pure business—ability than medical men as a rule have; but such matters might, under a change in the law, be placed in the hands of a lay member of the Board of Health, thus enabling the President to give his personal supervision to sanitation and measures in that line. The difficulty, of course, will be to find a medical man of the proper ability and reputation to accept the position at the very small salary which the office carries; but remembering that the city of New York constitutes the gateway into the country, the legislators might well consider if an emolument of sufficient amount to enable the most competent medical sanitarian to accept ought not to accompany the office. While we decidedly favor a change in the law as it at present stands, we are conscious of the fact that an incompetent medical man would be far worse than a competent layman; and, therefore, should a change in the law be effected, we trust a clause will be inserted removing the high office, once and for all, from the sphere of politics, and placing the appointment or the nomination in the hands of the representative medical bodies of this city. Such, at least, we think, would redound best to the selection of the man who above all others would fit the place. We trust that these comments of ours will not eventuate in pure dreams, but that realization, both as regards the coroner's office and that of the presidency of the Board of Health, will see its speedy fruition.

Should such be the case the community will be open to congratulation, since "coroner's justice" will cease to be a by-word, and methods of the Board of Health will in many respects be improved.

ORIGINAL CONTRIBUTIONS

SOME REMARKS ON UREMIA AND ECLAMPSIA*

By P. W. VAN PEYMA, M.D.

MY paper might properly be entitled "Some Remarks on Uremia and Eclampsia." It will be limited to a short consideration of the etiology, pathology, and treatment of these conditions as occurring during pregnancy, labor, and the puerperium.

In explanation of my change of subject, I may say that not having given any special attention to "diseases of intra-uterine life, on the part of the child," and not wishing to present simply a compilation, I asked the privilege of choosing a subject, the presentation of which might be based, to a considerable extent on personal observation and thought. During the last eighteen months I have seen nine cases of eclampsia, and about the same number of cases of uremia, presenting serious symptoms, both renal and general in character. In several of the latter premature delivery, was induced on account of the alarming character of the symptoms.

Etiology and Pathology.—The most generally accepted belief regarding the nature of these conditions is that they are due to various toxic agents—that they are toxemias, due either to the accumulation of ordinary excrementitious products or to the formation of pathological toxic material; and further, that these toxins act upon the nervous system, producing the well-known symptoms of headache, disturbances of vision, epigastric pains, convulsions, and coma. As a predisposing cause, we recognize the increased nervous irritability of certain individuals, and of the pregnant state in general. That the toxic agents induce the convulsive seizures by first exciting a spasm of the arterioles, and a consequent anemia of the nervous centers, is quite generally accepted. The sudden occurrence of anuria has been attributed to a similar spasm of the renal arterioles.

The more limiting and exclusive theories of edema of the brain, the toxic properties of acetone, the mechanical theories of pressure on renal vessels and ureters, etc., have received less acceptance. In four autopsies seen within the last year neither cerebral edema nor evidence of pressure on the renal vessels was recognizable. The permeability of the ureters was shown by pouring water into the pelves of the kidneys and allowing it to flow into the bladder. In no instance was any obstruction noticeable. One of the ureters showed a slight echymosis on its external surface, otherwise nothing pathological was found in this connection. In only one instance did the kidneys show unmistakable evidence of nephritis. In one case the liver was the chief seat of pathological change, the microscopic appearance being that of fatty degeneration in patches.¹

Among the more recent views regarding pathology, we may notice those of JURGENS, as to the occurrence and causative agency of hepatitis hemorrhagica; the occurrence of liver-cell emboli (JURGENS and KLEBS), the theory of ptomainemia, and the existence of a special bacterium, first suggested by DELONE, and maintained by FAVRE and HERGOTT; also the similar theory of DORIA; and, lastly, the theory of SCHMORL, who, claiming to have observed numerous obstructions of vessels by emboli formed of placental cells, attributes the symptoms of eclampsia to coagulation processes induced by the placental cells, which have entered the circulation; or, in other instances, the development of disease processes in the placenta itself, with resulting production of toxins, and subsequent entrance into the circulation of these coagulating agencies.

In the October number of *Virchow's Archives* is an interesting report by Dr. LEUSDEN, of Marburg, of two autopsies following death from eclampsia. The examinations were unusually complete, and included careful microscopical investigation. The conclusions are as follows:

"Nothing was found to indicate an infectious (or bacterial) origin of eclampsia;"—in all probability the condition is one of toxemia.

Of the various organs, the kidneys show the greatest pathological change.

The multinuclear cells found in the lungs (first described by SCHMORL) exactly resemble so-called placental cells, but their existence is to be considered neither as cause nor effect; emboli of this character are to be considered as of accidental occurrence. A coagulating effect of these elements could not be determined; nor was it possible to establish the production within the placenta of coagulation-producing toxins.

Liver-cell emboli were not found, although carefully looked for; the very moderate necrosis of liver parenchyma found cannot be considered as a causative factor in the production of eclampsia; the hyaline capillary thrombi, found in the lungs and the liver, are not characteristic of eclampsia, and are to be looked upon as secondary, probably due to a specific toxemia; they stand in intimate relation to the production of pulmonary edema and the hyaline coagulations within the alveoli. That these hyaline casts are due to fibrinous metamorphosis of the alveolar epithelium could not be determined.

The record of my autopsies, as well as those of others, shows that we may have serious uremic convulsions and death with but little or no recognizable renal lesion. Experiments have shown that certain dialyzable albumins or perverted excretory products may, as well as bacteria and many other agents, cause a degeneration of renal epithelium. In these cases the kidney lesion is not primary, but secondary—an effect rather than a cause. By its degeneration the vicious circle is completed. It is well to remember, however, that the kidneys, like other organs, can accomplish much more than their physi-

* Read before the New York State Medical Society, January 28, 1896.

1. The autopsies were made by Dr. Herbert Williams, pathologist of the University of Buffalo, and to him I refer for further particulars.

ological norm, and that so long as they do their work uremic accidents are highly improbable.

The accumulation of toxic products may be due to increased or perverted production, to diminished elimination, or to a combination of both conditions. Our present knowledge would seem to warrant the belief that in so-called uremia we may have either of these conditions.

In continuing to use the term "uremia," we no longer mean to imply that urea is the toxic agent. Regarding the nature of the toxins, it is established that they are both varied and numerous. The injection into the circulation of normal urine in sufficient quantity causes myosis, fall of temperature, and death without convulsions. Various pathological urines, however, produce convulsions before death. Jaundiced urine is especially toxic. In the case of eclamptics the urine is less toxic, while the blood-serum is more so than normal. In a certain case of eclampsia CHAMBRELENT found the serum about three times as toxic as that of a healthy person.² The urine of waking hours is more toxic than that of the sleeping state. If this is to be interpreted as an accumulation of toxic material during sleep, it would explain the not infrequent occurrence of convulsions during sleep in the early morning hours. Of this I have seen two examples, both cases fatal.

BOUCHARD has succeeded in more or less perfectly isolating seven of the toxic constituents of urine. Of these urea is but slightly poisonous. It has been shown that the dose necessary to kill is enormous—being ten times more than the whole amount found in cases of profound uremia so called.³ Much more important are the extracts (including the coloring matter) and the potassium salts. Each of these ingredients possesses its peculiar toxic properties.

Salivation, diuresis, myosis, fall of temperature, convulsions, and coma are the principal symptoms observed. The alcoholic extract causes diuresis, salivation, and coma; the residue, non-alcoholic, is evidently much more toxic: it produces myosis, fall of temperature, and convulsions. The potassium salts, especially the bicarbonate, even when but slightly in excess of the normal, produce convulsions and death. The alkaloids are not especially toxic. These facts enable us to explain how varying combinations of these agents may produce varying clinical pictures—how in one convulsions, in another coma, and in a third mental excitement may be the characteristic symptom. It is also possible that we may find in the existence of the alcoholic extract an explanation of the salivation of pregnancy.

As to the sources of the toxic agents, disassimilation or the production of excrementitious material, both normal and perverted, would seem to be the chief. The ingestion of food, with its changes in the alimentary canal, must also be considered; and, lastly, the perverted functional activity of the liver appears to be of considerable importance. That the liver acts

as a guard against the absorption of toxic material is generally recognized, as also that, by virtue of this function, it frequently becomes itself the seat of degenerative processes. Like similar conditions of the kidneys, degenerations of the liver may be both cause and effect in the processes under consideration. Jaundiced urine, as has been said, is exceedingly toxic, and bile is said to be six times more toxic than urine. In the pregnant state we must, of course, also consider the fetus as an additional source of waste products and an added source of danger to the mother.

Treatment.—In conformity with the views expressed, rational plans of treatment have aimed at removing toxic material by all possible channels. Catharsis, diaphoresis, venesection, and diuresis, as well as oxygen and dry fresh air for inhalation, have been recommended and employed. Where the case has been considered one of copremia, intestinal antiseptics suggest themselves, and I have seen a case where their administration was followed by rapid improvement. Here also milk diet has a double indication.

Recent experiments have thrown much doubt on the efficacy of the vicarious action of the different emunctories. It is claimed that a serous diarrhea removes only a hundredth part of the urea contained in an equal volume of urine, while sweat removes a still smaller proportion. In the case of the extractives the relation seems to be different, and according to BOUCHARD 280 grm. of a liquid diarrhea remove as much as 100 litres of perspiration; and the same is accomplished by the removal of only 32 gme. of blood. Theoretically, then, venesection would be indicated on this ground, as it has been recommended on other hypotheses.

That venesection is not always curative is well known, and is seen also in the cases where no improvement follows post-partum uterine hemorrhage. On the whole, practical experience has not maintained the hopes raised by theoretical considerations and experiments on animals. Certainly it should be limited to those cases where the condition of the pulse is no contra indication. PORAK, FERRÉ, and CALDERINI have recommended the intercellular injection of large quantities of normal salt solution on the principle of diluting the toxins, quieting the nervous system, and promoting polyuria. At the September meeting of the American Association of Obstetricians and Gynecologists, Dr. LAMPHEAR, I am informed, reported exceedingly favorable results in a large number of cases treated by the intravenous injection of this solution. At the first favorable opportunity I shall try a combination of venesection with subsequent saline injections. On theoretical grounds, this would seem to offer a double advantage.

With bleeding the patient into her own veins, as the use of *veratrum viride* has been styled, I have had considerable experience; and I believe that, where the strength of the pulse warrants its employment, it is a useful agent. I have never seen the

² Ludwig and Savor, assistants in Chrobak's clinic, report similar results.

³ Urea has even been recommended as a remedial agent on account of its diuretic properties.

convulsions continue after the pulse had been brought down to 60 per minute. Yet, notwithstanding this, the patient frequently dies.

My experience with pilocarpine has been unsatisfactory. Its depressing effect on the heart is unfortunate and dangerous. It is my opinion that many cases of eclampsia die from over-medication. With veratrum, pilocarpine, chloral, and chloroform all employed in one case, as they sometimes are, we need not wonder if the heart fails and the patient dies.

The administration of morphia, chloral, chloroform, and other remedies employed to lessen nervous irritability and to relieve vaso-motor spasm, for want of time I only notice in passing. VEIT's results with morphia cannot fail to attract attention.

Great diversity of opinion exists regarding the advantage of immediate delivery in cases of eclampsia. In this country the tendency is strongly in its favor. In Europe also DÜHRSEN has urged "accouchement forcé" with incisions of the cervix. Others have not been able to obtain as favorable results as he reports. In Vienna, and at the Royal Maternity, Dresden, under LEOPOLD, active interference was not favored, as a rule, at the time of my visit five years ago. While the chances were considered rather better with the uterus empty, yet this slight advantage was deemed to be more than counterbalanced by the irritation and shock of active interference. It has been suggested that DÜHRSEN's results are to be attributed to the hemorrhage incident to the incisions and labor rather than to the emptying of the uterus. My practice has been between the two extremes—inducing labor where the ordinary treatment has failed to control the convulsions.

Cases.—The question that has interested me very much of late is that of inducing labor in cases of uremia, where eclampsia or other dire results seem threatening. To illustrate the responsibility, and the difficulty of arriving at a decision, I briefly draw on my recent experience.

Mrs. H., totally blind in one eye, as the result of a former albuminuric retinitis occurring during pregnancy, was again pregnant about five to six months. The old condition returned, and I was informed by a well-known oculist that the remaining eye was rapidly becoming blind. In spite of treatment the condition grew worse, and after waiting as long as I dared, labor was induced at about the twenty-sixth week. Unfortunately twins were born. Both were born alive, and I had some slight hope of their viability. Both, however, died within 24 hours. The patient's condition immediately improved, and her eye is now perfectly well. In reporting this case to the Buffalo Academy of Medicine, one of the members accused me of being a double murderer. On the other hand, the patient persists in thinking that I was a friend in need.

A second case was as follows: Mrs. —, the married daughter of a physician, a primigravida, seven months advanced, had a convulsion while alone in

the house, falling against the stove. An errand-boy calling at the house, and noticing her blackened eye and dazed condition, informed the neighbors. The patient was placed in bed and immediately had a second convulsion. Consciousness returned and she did well for a week, when she had a third convulsion. From this time until natural delivery occurred, about two months later, she had occasional headaches and other suggestive symptoms, but no convulsions. At no time could more than a trace of albumin be found. The total quantity, sp. gr., and amount of urea, diet, and other circumstances considered, was fairly satisfactory.

There was no history of epilepsy.

A third case, seen in consultation, was one of unusual interest. Mrs. —, about thirty years of age, weighing about one hundred and twenty pounds, the mother of two children, pregnant since June 11, was visited by her physician November 26. She presented edema of face and limbs. From this time until labor was induced, January 14, the urine was examined almost daily, quantity large and gradually increasing until it became five or six pints daily, sp. gr. 1009 to 1011; urea 150 grn. 10 gme.; albumin gradually increasing until settling from $\frac{1}{4}$ to $\frac{1}{3}$ the height of urine in tube—casts hyaline, granular and broken-down epithelial. She was placed on Basham's mixture, milk diet, sweats, etc.

Gradually nervous symptoms of doubtful character, such as transitory headache and nervousness, especially at night, with insomnia developed. Fears were also entertained that the condition of the kidneys might become permanent. Notwithstanding the gravity of the condition, I advised delay until the child should be more certainly viable; but the desires of the family, to whom the matter had been explained, and the counsel of a third physician, prevailed, and labor was induced January 14, the period of pregnancy being 28 weeks and 2 days. A living child, weighing 3½ pounds, was born and continues to live. The third day after delivery 510 grn. of urea were passed, and at present the average is about 300 grn., albumin is rapidly disappearing, quantity of urine continues about 5 pints. If the child should continue to live, the treatment will be vindicated.

In a fourth case, labor was induced about two weeks previous to full term, on account of alarming symptoms. The patient had suffered from convulsion during the previous pregnancy, about a year ago, and had been delivered prematurely, about the seventh month, of a dead child. In this case a living child, and healthy, was born. As the head was passing over the perineum patient had two convulsive jerks of the entire body. She has made a good recovery.

In conclusion, I desire to emphasize the great importance of this subject. Since the advent of aseptic methods, and with it the possible prevention of infection, eclampsia remains as the chief source of unavoidable mortality in child-bearing women. In a

general way, it may be said that one in three hundred of women who bear children dies from eclampsia. In the way of prevention much can be done by regulating hygiene, by frequent examination of urine, and by informing the family regarding the premonitory symptoms. That eclampsia may occur without premonitory symptoms is admitted, but authorities agree that the occurrence is extremely rare. The importance of this suggestion and the insufficiency of urinalysis alone were illustrated in a recent case. A primigravida developed convulsions, the urine was loaded with albumin; previous examination, the last one five days before, had discovered nothing abnormal. Had the warning of a severe headache, lasting about twelve hours, been recognized and heeded, the attack might have been averted. In view of our present knowledge, it would seem that especial importance must be attached to the quantity of urine and the sp. gr., as showing the total amount of solids—the presence of sugar being excluded. In estimating the sufficiency of urea and solids generally, allowance must of course be made for diet, exercise, weight of individual, etc. FLINT, in experiments upon himself, found that on an animal diet he excreted 53 gme. of urea; on a mixed diet, 32; vegetable, 22; and non-nitrogenous, 15.

In view of the toxicity of potassium salts it would seem that the common practice of administering the bromide and bitartrate should be discontinued. Future progress in our knowledge regarding the conditions under discussion undoubtedly will be in the line of what may be called physiological chemistry, and in carefully made autopsies supplemented by microscopical research. The ordinary macroscopic examinations are of but little value. The determination of the prognosis of the kidney affection in given cases offers an important field for research.

I thank you for the opportunity of addressing such representative body, and hope that this paper may have accomplished its chief object—that of exciting renewed interest and investigation and thought toward the solution of this serious and momentous problem of obstetrics.

Buffalo, N. Y.; 445 William street.

AN UNUSUAL NASAL POLYPUS *

HENRY J. MOLFORD, M.D.

Clinical Instructor in Diseases of Nose and Throat, Medical Department,
University of Buffalo

I PRESENT for attention the history of a tumor, intranasal in origin, having the following points of interest: (a) History of the patient; (b) origin and situation of the tumor; (c) method of removal; (d) macroscopic appearance; (e) microscopic structure.

(a) **PATIENT'S HISTORY.**—Male, aged 22 years, farmer; large, well nourished; throat trouble past few weeks; seemed to be something there he could

not raise; difficulty in breathing at night; headache frequently; some pharyngeal secretion; no nasal secretion; no "catarrh"; never anything removed from nose; no earache.

(b) **ORIGIN AND SITUATION OF THE TUMOR.**—Examination revealed the following: Mouth-breather; face of pressure; voice lacks nasal resonance. Nose (through nares externæ); septum and turbinates of each side regular; mucous membrane deeply reddened, left no excessive secretion; no polypi seen at any point. Pharynx (through mouth): large pharynx; mucous membrane much injected; velum palati bulging slightly into mouth. Posterior rhinoscopy shows large, smooth, reddened mass completely filling, seemingly, the naso-pharynx. No point of attachment discovered. After operation posterior rhinoscopy reveals bleeding point at posterior extremity, left middle turbinate, as per diagram below. The tumor lay with flat surface against velum palati. After its removal the naso-pharynx could be seen in every part. No other growth visible at any point.



FIG. 1.—OUTLINE OF OUTER WALL OF INTERNAL NOSE. LEFT MARK IN SOLID BLACK SHOWS POINT OF ATTACHMENT OF TUMOR TO MIDDLE TURBINATED BODY

(c) **METHOD OF REMOVAL.**—Removed through oropharynx with Bosworth snare, curved cannula. The wire loop was bent at right angles to tip of cannula, and an endeavor was made to pass this around and above the mass. The cannula was pushed well up, but the wire refused to pass the obstruction. On attempting to withdraw the snare the loop was found to be firmly engaged with tumor. Having to act quickly, I tightened the wire, and, giving a sharp pull, the entire mass came away without a break. There was no hemorrhage—the bleeding stopping without attention in a few minutes.

(d) **MACROSCOPIC APPEARANCE.**—When fresh the tumor was slightly larger than the photograph here reproduced. It was also very smooth, soft to the touch, and of a light pink in color. It is peculiar in that the pedicle is so long and distinct, and in that the body is divided into three clearly cut lobes. I had never before seen one so distinctly lobed, nor do I find record of such a one. Covering under surface of lowest lobe was a very fine network of blood-vessels. The surfaces of the other lobes were marked by occasional vessels.

(e) **MICROSCOPIC STRUCTURE.**—A fibroma of the myxomatous variety. The micro-photograph below shows its structure. It contains a number of variously shaped cells, the varieties present being round,

* Read before Pathological Section, Buffalo Academy of Medicine, December 27, 1895.

fusiform, and branching. The cells are few in number and small, showing that the growth was of recent origin. About the cells is a fine fibrillar connective tissue, the whole being imbedded in a soft, gelatinous substance.

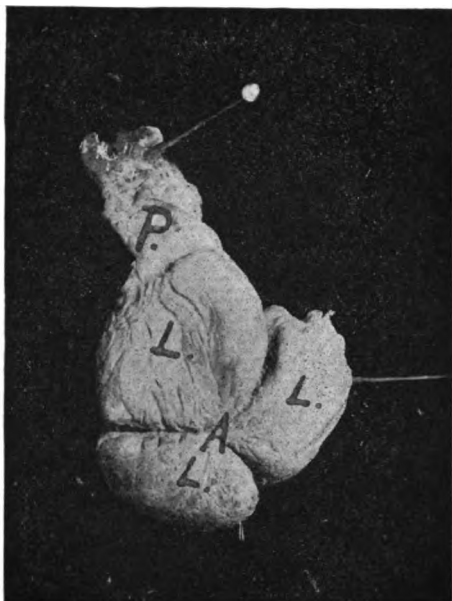


FIG. II.—P, PEDICLE; LLL, THREE LOBES; A, POINT AT WHICH LOBES COME TOGETHER. DIMENSIONS WHEN FRESH: TWO INCHES AND ONE-HALF FROM ATTACHMENT TO TIP OF LOWEST LOBE; ONE INCH AND ONE-HALF ACROSS WIDEST PART. (PHOTOGRAPH MADE IN PATHOLOGICAL LABORATORY, UNIVERSITY OF BUFFALO)

For this tumor we cannot determine a cause. There is none visible. The man's history gives no hint. He denies having had catarrh or polypi. Rhinoscopy reveals no disease of the schneiderian membrane or bone necrosis. Here, possibly, theory

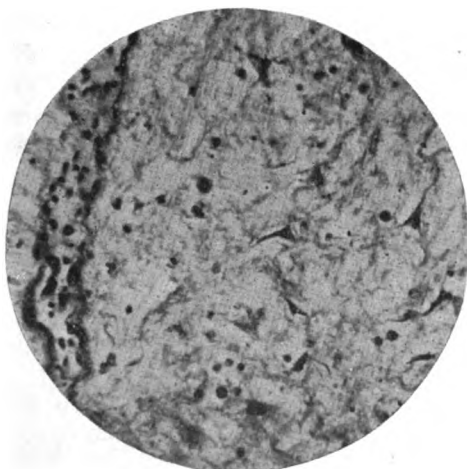


FIG. III.—MICRO-PHOTOGRAPH OF SECTION OF FIBROMA*

is of value. COHNHEIM has given us the hypothesis of the embryonal origin of tumors. It may be, that, in this case, the unused embryonal cells had lain crowded together, denied their proper development by the stronger activity of the surrounding cells, until, the opportunity presenting, they sprang into activity, and a tumor was the result. The reason for this sudden and long-delayed activity

* Section and photograph prepared in Pathological Laboratory, Medical Department, University of Buffalo.

cannot be given. It may be wiser to say, "Cause unknown," than to suggest a cause incapable of proof.

The diagnosis lay between pure fibroma and fibroma of the myxomatous variety. The myxomatous fibromata (erroneously called myxomata) are, in themselves, harmless, and their removal gives no danger. They have origin almost always within the nose (the common nasal polypus). The fibromata, on the other hand, carry the danger of hemorrhage.

They bleed easily, giving rise to frequent epistaxis, and their removal is attended by obstinate and often fatal hemorrhage. Their origin is rarely within the nose, almost always being found attached to the vault or some part of the naso-pharynx. The diagnosis of myxomatous fibroma was made for these reasons: Its probable rapid growth; no history of earache or epistaxis; and its softness to the touch. Its removal brought no discomfort or danger.

In operating there was choice of method. Most tumors of the nose and naso-pharynx are easily removed by the cold-wire snare through the nares externæ. This tumor was too long and too tightly crowded against walls of pharynx to be reached in this manner. Or they may be snared from below through oro-pharynx, as was done in this case. It being impossible to reach the tumor's pedicle by other methods, a vertical incision may be made through the velum palati, and the pedicles severed through this opening. This gives another point for possible hemorrhage, and should not be done unless other procedures fail. Again, electrolysis may be tried; a procedure long and tedious—fit for timidity. The snare is quicker and comparatively painless.

The patient was to report on the day following the operation, but he disappeared, and has not been seen since; so no after-treatment (cauterization) was given, and I cannot say as to recurrence of the growth.

Buffalo, N. Y.; 466 Franklin street.

ON THE STERILIZATION OF CATGUT*

By A. J. RICHER, M.D.

Late Assistant Faculty Surgical Clinic, Cracow; First Assistant Physiological Laboratory (Prof. Richet) Academy of Medicine, Paris

MUCH has been written on this subject, and a recapitulation of the different works with criticisms would make this almost a volume, and as a result might prove uninteresting.

The two most recent works on this subject which I have been able to consult are those of Dr. ANTONI ZAJACZKOWSKI, of Warsaw, published in *Przegląd Chirurgiczny*, No. 3, 1895, and that of Dr. CARL LAUENSTEIN, of Hamburg, published in the *Archiv für klinische Chirurgie*, No. 2, 1895.

While these two gentlemen have been able to clear

*From Prof. Rydygier's Surgical Clinic, Cracow, Austria, July 15, 1895.

up a number of doubts with regard to the nature of the bacilli which infect catgut, neither has proposed any method of sterilization, although they have criticised those now in use. A third work appeared recently, which I have not had the privilege to consult. It is by Dr. C. JOHNSTON and was published in the April number (1895) of the *American Journal of Obstetrics*.

Dr. RÉPIN (Pasteur Institute) in 1894 devised a means of sterilization in the vapors of absolute alcohol under pressure (120° C.); a full description of his process was published in the *Archiv. provinc. de Chirurgie*, No. 6, 1894. While his method is very thorough indeed, it makes the catgut rather expensive.

There have been a number of methods proposed, notably Braatz's, v. Bergmann's, Reverdin's, Braatz's modification of Reverdin's, Brunner's, Krönig's, and others, all of which can be more thoroughly studied by consulting the literature indicated at the end of this article; but the greater number of these methods have not proved entirely effective.

I have repeated the experiments of RÉPIN, but always using dry heat as a means of sterilization, and have found that all known pathogenic bacilli, even in a sporulated condition, placed in the best possible conditions of resistance, were destroyed by dry heat at 140° C. when subjected to it for a period of time surpassing two hours, but that this was not always the case when the experiments were made with the nonpathogenic bacilli, such as the spores of the bacillus subtilis, the bac. catguti of Brunner, and bac. catguti (β) isolated by Dr. ZAJACZKOWSKI, and the bacilli of red potatoes quoted in the work of Dr. LAUENSTEIN.

The destruction of the above bacteria would not be of much importance were it not that some of Dr. ZAJACZKOWSKI's experiments have proved almost definitely that the association of these with the ordinary bacteria of suppuration greatly exalted the virulence of the latter, hence the necessity of their destruction.

The works of Dr. ZAJACZKOWSKI and Dr. LAUENSTEIN have proved that in order to destroy these nonpathogenic micro-organisms, a temperature (dry heat) of 160° C. must be attained, but how to do this without destroying the catgut has been the problem which I tried to solve. It would seem that catgut owes the greater part of its pliability to the water it absorbs from the atmosphere; this water when vaporized at high temperatures destroying the catgut in the same way that steam does. Taking advantage of this fact, I submitted samples to be sterilized, to a dry heat of 70° – 80° C. for half an hour or more, and then would gradually raise the temperature to the maximum.

From the experiments which I made I concluded to adopt the following method:

The catgut (coiled and wrapped in filter-paper) is placed in a cool oven which has an opening above for the escape of air charged with moisture; heat is then applied and the temperature gradually and

slowly raised to 70 or 80° C., and kept thus for half an hour, after which the temperature is again slowly raised to 120° , and allowed to oscillate between 120° and 130° for another half-hour, when it is again slowly raised to 160° and allowed to oscillate between 158° and 163° for an hour to an hour and a half; it is then left in the oven until quite cool.

In this way I have sterilized catgut without in any way injuring it. It is needless to say that in each experiment when this method was used the different culture media proved the catgut to be thoroughly sterile no matter with what micro-organism I had previously infected it. After having controlled my experiments with culture media, I took two rabbits; in the peritoneum of the first I introduced samples of catgut previously infected with sporulated anthrax and sporulated subtilis, and sterilized by the above method; in the peritoneum of the second I introduced samples of catgut previously infected with bac. of tetanus and spores of bac. catguti (Brunner), also sterilized by above method. Both of these operations were performed under the strictest asepsis, and the dressings were simple aseptic ones; the wounds healed by first intention, without even showing a tendency to suppuration.

These animals were observed for two weeks and never showed at any time signs of peritoneal infection.

I have also sterilized catgut by KRÖNIG's method (cumol, 160° – 170° , two hours), which proved very thorough, the only disadvantage being that the cumol hardens the catgut, necessitating its transfer into some aseptic or antiseptic medium after sterilization, and thus exposing it to reinfection during the manipulations necessary for its subsequent preservation.

It may be well to add that the oven used for sterilization by dry heat must be fairly large and airy; the catgut must be placed high above the source of heat and *not* inclosed in anything else but filter-paper.

The whole operation should last about four hours.

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It was decided at the conference recently between the State Board of Charities and the Commissioners of Charities of this city, that according to the law the Charity Commissioners are obliged to undertake the inspection of the institutions where the destitute children of the County of New York are cared for under private management, and for whose maintenance payment is made of the public money.

A CONGENITAL PTOSIS-CASE AND OPERATION*

By J. OSCROFT TANSLEY, M.D.

CASES of congenital double ptosis are somewhat rare. I have had four upon which I have operated, and I have seen several operated upon by other surgeons. The only operation which I have seen performed, and which I have myself performed previous to the case which occasions this paper, has been the so-called Von Graefe's; that is, the removal of a parallelogram

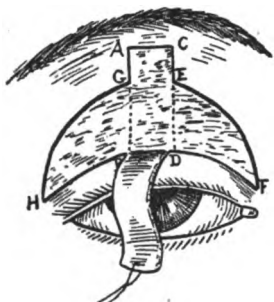


FIG. 1

or semilunar-shaped piece of the lid and orbicularis muscle. These operations, so far as my observation goes, have always been unsatisfactory, either not benefiting the patient much, or else not leaving sufficient lid tissue to cover the cornea during sleep.

The case which I take great pleasure in showing you to-day consulted me on January 26, 1895. It was a very marked ptosis, the palpebral opening was quite short, and reduced to a mere slit, the patient had but very small power over the upper lid, and was obliged to throw the head back considerably in order to see anything in front of him.

The palpebral opening being so short, an operation for its elongation was necessary before attempt-

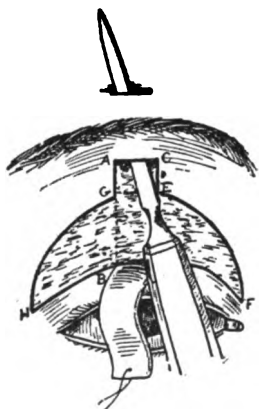


FIG. 2

ing to operate upon the ptosis; so, upon February 14, I performed the usual canthoplasty upon both eyes under cocaine.

On March 4 I operated for the ptosis, doing an operation, which is practically a combination of the Panas and Von Graefe operation, as follows:

I made two perpendicular and parallel cuts—A, B, C, D—one-quarter of an inch apart, and extending from the upper orbital margin to within two lines

of the edge of the upper lid. These cuts were united at the upper extremity by a horizontal incision—AC—and then the ribbon of tissue was dissected up and permitted to drop down upon a wad of cotton lying upon the cheek, which was kept moistened with warm Panas solution.

Then a curved cut was made from H to G and E to F, following the crease which shows the upper limit of the tarsal cartilage, and a straight cut was made from H to B and from D to F, parallel to and about two lines distant from the lower border of the upper lid. The derma and the orbicularis embraced within these cuts were then carefully dissected off, leaving the whole tarsal cartilage clean and denuded of tissue.

This denuded surface was carried a trifle beyond both the internal and external canthi.

The cut edges HG and EF were united to the cut edges HB and DF, respectively, by interrupted sutures.

Then a Graefe's knife was entered at AC and passed beneath and brought out upon the forehead just above the eyebrows, and slight lateral cuttings were made so as to give room for the passage of the ribbon of derma which had been dissected up at the first stage of the operation. Then passing a strong suture into

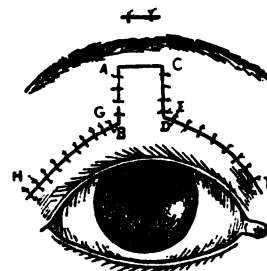


FIG. 3

the upper edge of this ribbon of derma, it was used to draw this ribbon up into the cut made beneath the eyebrows, and brought out upon the forehead, and, when drawn up sufficiently tight, so as to leave no folds of tissue or puckering, it was cut off smooth with the forehead and fastened there by two small sutures. Then several sutures were placed from A to G and C to E, uniting the edges of the ribbon—which had been slid up as described—to the bordering derma, and the operation was finished.

The whole operation was done under cocaine, using it first hypodermically, and then having it dropped upon the cut surfaces at short intervals by an assistant.

The dressings were pieces of linen moistened in a cold solution of boric acid and biborate of soda, and changed often, night and day, until the parts had healed completely.

The sutures were removed from day to day, as seemed advisable. There was no swelling or formation of pus. The ribbon of tissue under the eyebrows caused some little pain for two days, but this passed away, and there was no annoyance thereafter.

The results to me were very satisfactory; much more so than any of my previous operations, and as

*Read before the American Ophthalmological Society held at New London, Conn., July, 1895.

one of my friends, who has had great experience and opportunities for observing such cases, said: "He had never seen so perfect a lifting of the upper lid with so perfect a covering of the cornea when the eye is closed."

New York; 28 W. Forty-third street.

SHALL THE PHYSICIAN CARRY HIS OWN DRUG STOCK?

By A. L. BENEDICT, M.D.

EXCEPT to avoid quibbling, it is scarcely necessary to state that our discussion of this question has no reference to the use of hypodermatic and other medicines commonly kept in readiness for an emergency. It would be quite as practicable to depend upon prescriptions for such remedies as to order a thermometer or stethoscope for each case. Neither do we intend to discuss the question from the standpoint of the country practitioner, who must visit patients miles from drug-stores and, as a matter of practical humanity, must rely on his own buggy-case for all but the most elaborate and least urgent prescriptions. We have thus limited our discussion to the city doctor, with pharmacies convenient at all times of the day and evening and not inaccessible at night. Thus restricted, there is much to be said on both sides of the question.

In accordance with the modern tendency to specialism, it seems most reasonable that the physician should leave the actual preparation and dispensing of drugs to one who has had careful training in that branch, and should dismiss his traditional claim to embrace the functions of all the allied healing arts. There is no doubt but that specialism has sometimes been carried to ridiculous extremes. One of the darkest periods of medical history was that in which the physician assumed a false dignity and relegated to unlearned though mechanically skillful assistants all operative surgery and the mysteries of pharmacy. Those were the days when pigeons' hearts, pounded lizards and spiders, and various messes too filthy to mention supplanted the practical though empirical materia medica of an earlier epoch, and when the surgeon-barbers bled so freely that the blood-stained rag wound around a pole became the symbol of their trade that has persisted in conventionalized form to the present. The impression is a strong one that if the physicians of that day had reddened their own hands with blood and had concocted their own vile prescriptions, they would have shed blood more wisely, and would have tempered their therapeutics with decency and common-sense.

One of the secrets of executive success—and the physician is pre-eminently an executive—is a personal acquaintance with details and the ability to use one's own hands if necessary. When a secretary of the navy, on his first official visit to a battleship, exclaimed, "My God, she's hollow!" he afforded perhaps the most ludicrous, but not the most serious, example of the folly of allowing a man to supervise where he could not serve, and to issue

orders which he could not carry out. We remember a physician of considerable experience and prominence who prescribed mel boracis, and directed, "Let a piece the size of a pea dissolve in the mouth."

Again, there are some drugs as to whose solubility, reactions, etc., a general and pardonable ignorance prevails; for example, is there any obvious reason why the substitution of resorcin for carbolic acid in a Dobell's solution should result in an explosion? The physician who dispenses his own drugs can easily acquire detailed information and modify his prescriptions to obviate difficulties of insolubility and incompatibility, when he could not write a prescription with the necessary provisos and alternatives. The expense of medicines to patients is also an important consideration in many instances.

Some time ago a certain dispensary tried the experiment of furnishing free medical attendance, but issuing prescriptions instead of giving medicines. It was found that the really deserving applicants were deprived of the practical benefits of the charity, and that often patients could save not only their self-respect, but their money, by going to private physicians and paying fifty-cent rates for advice and a few tablets. In too many cases it is a question with the young practitioner whether he will give a patient a few cents' worth of tablets and receive his fee, or write a prescription and charge up a bad debt, while the druggist receives almost as much as the doctor should have had for his consultation. Honest patients of small means often find the druggist's profit the last straw that breaks their endurance.

One of this class expostulated with us for prescribing expensive medicine, saying that unless it were absolutely necessary she could not afford it. She had paid 85 cents for an ounce of fluid extract of cascara sagrada—about five times its cost to the druggist. It certainly would not be fair to allow the skilled pharmacist only the same profit that the seller of dry-goods reckons on, but we believe that the price should be based on a uniform percentage over the cost. City prescriptions, paid for by the poor-department, average a gross profit of 50 per cent., yet many druggists are unwilling to handle them, or claim that their real profit is an indirect one, or that they act from charitable motives in dispensing these prescriptions. Ridiculous as this may seem to a business man, there must be some truth in it, for one who turns away trade from his door usually acts in good faith. Even if the uniform profit on all drugs sold at retail were 100 per cent., with the price of the bottle and a small fee for compounding mixtures added, the average prescription would not cost the patient more than 20 cents, and most orders for unmixed medicines, tablets especially, would cost not more than 10 cents. If such a system should come into general favor, the commercial argument in favor of the dispensing of drugs by physicians would lose its force. Under the present cus-

tom of charging according to the ignorance of the patient and without reference to the cost of the drug, the pharmacist must recognize that his trade is in direct opposition to economic law. However much the physician may be disposed to follow the motto "Live and let live," however much he may sympathize with and favor the druggist, the latter must realize that there is an inevitable pressure against any business that subsists on large proportionate profits.

It must be borne in mind that the mutual obligation of physician and pharmacist is not an equal one. Historically and naturally, pharmacy is the subordinate of medicine, and the province of the former is only the voluntary concession of the latter. Thus, when the physician trespasses on the field of the druggist, he is, at most, guilty of a breach of courtesy, while the druggist who usurps the function of the physician violates an ancient right supported in many States by both statute and common law. Yet convenience and equity demand the separation of the prescriber from the dispenser, and the fact that the practical utility of such a separation is called in question shows that some element has entered to pervert the natural tendency of modern specialism. We began practice with the belief that the physician should not undertake the duties of the pharmacist; we have gradually established the habit of furnishing everything except unusually expensive or complicated medicines, or those like liniments, salts, rose-water, etc., commonly regarded as the proper subjects of domestic and counter prescribing. Why? Because we have found by bitter experience that the pharmaco profession as a whole does not consider either the business rights of the doctor, the safety of the patient, or the principle of fair dealing, with those who do not happen to know the value of what they purchase. The prescription is the physician's check ordering the delivery of a certain thing to a certain person, on one occasion. The druggist who repeats a prescription without a fresh order, or who compounds from what is evidently a previously filled prescription, whether the paper presented be the original document issued by the physician, or a copy, has simply aided in a fraud not differing in principle from the obtaining of duplicate payments or the second use of a revenue or postage stamp. There are individual druggists who are the soul of honor so far as such matters are concerned, but our experience is that a prescription issued is like a word spoken, not to be recalled, and liable to be turned against the interests of the one from whom it emanates.

A pharmacist who is in nominal good standing has issued such a card as this: "Prescription No. — is a valuable formula for —. Yourself or any of your friends can have it refilled at any time by presenting this card. The price will be —." In one instance another druggist, also in good standing, repeatedly filled a prescription containing a mercurial and marked "Do not repeat." When expostulated with, he excused himself by saying that

if he did not accommodate the patient, some one else would. Here he disregarded not only the rights of the prescriber, but the safety of the purchaser. In other instances some enterprising druggist has adopted the favorite prescription of a doctor as the basis of a proprietary medicine, and we have even known of cases in which the reputation of the doctor was used as a means of selling such a remedy. Granting that the remedy is recommended by the druggist in the proper cases, it is not pleasant to contemplate a brother-practitioner drawn into a vicarious quackery and impoverished by the very ability and experience which ought to increase his practice. We have said also that the profession of pharmacy, as a whole, is guilty of gross disregard for the safety of those who purchase medicines. In an experience with a number of cases of suicidal or accidental taking of poison, we have found that, in nearly all, the poison was obtained without difficulty, in the absence of a prescription, and under circumstances which would suggest to any rational person that the purchaser intended to take the drug in such a way as to endanger life.

We do not claim that the average pharmacist is a man lacking in principle or humanity; we do not believe that even a large minority of this profession are dishonest to physicians, extortionate in their dealings with patients, or careless of human life. We know, however, that enough druggists in good standing in their profession are guilty in the matters cited, so that a prescription cannot be issued without reasonable danger of improper use, and so that a close regard for one's own and the patient's interests favors the maintenance of a considerable stock of drugs for office dispensing.

Buffalo, N. Y.

Abdominal Massage for Habitual Constipation.— (*La Sem. mdd.*, XV, 1895, p. 520)

H. KÜMMERLING (of Baden, lately of Vienna) uses a method of abdominal massage which is much more efficacious than the ordinary method.

With the patient lying on the right side, the skin and subcutaneous fat at the level of the left iliac crest is pinched up between the thumb and index-finger of each hand; the descending colon is thus rendered more accessible to the tips of the fingers, and by this means rubbing and pressure movements are made upon the gut from above downward. This maneuver is continued for about five minutes. The patient is then turned upon the left side, and the same process repeated, but in the opposite direction, viz., from below upward. There now remains only the transverse colon and the small intestine to be massaged.

For this purpose the patient is placed in the genu-pectoral position, which has the advantage of relaxing the abdominal wall and dropping the intestines into the hand of the masseur. This massage, of which the entire duration is about fifteen minutes, has the effect of provoking an easy and abundant evacuation.

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IT is to be hoped that those who have in charge the arrangement of the proceedings of the next international congress will see fit to modify the statement they have issued in regard to the languages that will be considered official. It is surprising news to the great Anglo-Saxon race that English will not be recognized as such. If this dictum were uttered in reference to the Chinese language, medical men might well offer no protest, even though, in years far distant, this language may spread over the face of the globe to as wide an extent as English has to-day. No one will ever find fault with the adoption of French as an official language, and even German might be tolerated by all, possibly excepting the Frenchman; but to practically disbar a race which, above all others, is to-day adding to the science of medicine, is an executive dictum which we are loth to believe is intended to be taken in earnest. Possibly the powers that be have determined, even thus far in advance of the meeting, that but few if any Englishmen and Americans propose traveling to the distant city of Moscow; but, since any such prognostication is as yet more than premature, the announcement of the Executive Committee can but have the effect of deterring all who had intended going from these nationalities. In case the published rule be adhered to, we might

suggest even now that the Congress be not called an *international* one, but be limited exclusively to the medical men who are allowed to practice within the domain of the "great autocrat." An international congress without England and America will savor necessarily of such localism as to be unworthy of the qualifying adjective!

THE BULLETIN desires to thank its many friends who have expressed gratification at the manner in which the transactions of the Medical Society of the State of New York appeared in the last issue. The material presented was not in the shape of a mere abstract, but the essential kernels of the papers and the debates were incorporated in the report. In offering its readers such a complete report two days after the close of the meeting, including the scholarly address of the president of Harvard University, the BULLETIN was simply keeping the pledge given its thousands of readers that time, money, brains, and energy would not be spared to maintain it in the front rank of scientific and aggressive medical weekly literature. It easily far outstripped all its contemporaries, and this shall ever be its aim in the future. The determination to win in the generous rivalry for pre-eminence is the essential goal the BULLETIN strives for, thus not alone spurring competitors toward better work, but forcing the BULLETIN to accomplish the best work.

These self-laudatory words will be pardoned, we trust, in view of the fact that the BULLETIN, as a rule, wears its honors with that modesty which is ever associated with true merit; but even Modesty sometimes takes her light from under the bushel.

For many years it has been the earnest desire of the Fellows of the New York Academy of Medicine to raise an endowment fund for the maintenance of its library. The city of New York, which is rapidly becoming the scientific center of the world, should possess a medical library which would rival that in existence anywhere. The Academy of Medicine now has next to the largest in this country, and this much has been secured through the unaided efforts of medical men. And yet this library is, under the terms of the charter of the Academy, a free public library and is largely consulted by the laity.

It would seem to us, therefore, that a community which is benefited in so many ways by the medical men who are privileged to dwell here should be made to realize the fact that occasionally a dona-

ion to such a medical library would not alone benefit the profession, but both directly and indirectly the public at large. We daily see donations made to already wealthy schools for medical instruction. We witness hospitals and dispensaries receiving contributions for their maintenance. All this is eminently proper, and redounds to the good of the public. Strangely enough the wealthy seem to care but little about the needs of an institution like the Academy of Medicine, where among other things physicians may learn how more successfully to cope with disease, to relieve suffering, and to make the city, and therefore the country, better from a sanitary standpoint.

A determined effort is now to be made to raise an endowment fund for this library. The president of the Academy has appointed a committee of 26, the individual members of which are determined, so far as it may be feasible, to raise from medical and from lay sources a fund of at least one hundred thousand dollars, which will go far toward enabling the library to be maintained up to date, thus widening its sphere of usefulness. There should be a ready response on the part of the laity to the appeal for this fund, particularly since this committee will enlighten the rich of this city in regard to the purposes and the aims of the Academy,—something which must be but little understood, since, otherwise, we fail to see why often in the past the Academy has not been a beneficiary at the hands of the wealthy men of this metropolis.

ROENTGEN'S NEW RADIANT ENERGY.—Reports from Berlin corroborate the accounts lately published by the secular press regarding the discovery by Professor ROENTGEN, of the University of Würzburg, of a method of producing a new actinism.

At a meeting of the Berlin Physical Society, held January 2, Professor ROENTGEN described his apparatus and communicated his discovery. Through a sealed glass tube containing a vacuum he passed an electric current from a powerful induction coil. From the cathodal connection appeared visible rays of light, which, striking a sensitized photographic film, affected it as does the sunlight. Covering the tube with opaque black cardboard, and passing the same current through the tube, he ascertained that invisible actinic rays emanated from the cathode, and, at a distance of six feet therefrom, caused chemical decomposition of the sensitizer on a photographic film. He succeeded in receiving the rays upon a chosen object and then reflecting them upon a photographic plate, which, after this exposure, was

developed and a negative of the object was obtained. The value of this new photographic process lies in the fact that these non-luminous actinic rays penetrate to a certain depth various opaque bodies, producing photographs of these bodies which show their interior construction. Professor ROENTGEN exhibited to the Berlin Society a photograph of the hand taken by the newly discovered process, in which the bones of the hand had been photographed through the flesh. He exhibited also a photograph of the needle and graduated dial of a compass, which was taken through the metal case which inclosed it.

The tubes used are known as "Crooke's Tubes," and Professor ROENTGEN has given to the new imponderable the provisional term "X rays." He has discovered that they are not refracted.

The Würzburg experiments have been repeated by a few scientists. Dr. NEUSSER, it is said, has succeeded in taking photographs by means of the "X rays" which show deposits in the liver and kidneys of a living patient. Professor TROWBRIDGE, of Harvard University, has succeeded in taking a photograph of the bones of a living human hand similar to that taken by Professor ROENTGEN. Professor TROWBRIDGE considers a very powerful electric current essential to the production of good results, but unfortunately finds that ordinary 60-volt alternating current destructive of the Crooke's Tubes.

Professor ROENTGEN's theory regarding the "X rays" is that they are produced by longitudinal vibrations of the ether. Whether this be true or not, the value of his discovery to medical science is prodigious. Location of bullets, of fragments of bone or of cloth within the anatomy; determination of the size, position, and condition of the viscera; or examination of the contents of hollow viscera, may be possible with the aid of the new radiant energy, if methods of control of the rays so as to focus them at a certain depth can be obtained, and if the opacity of bone can be overcome.

The discovery is certain to be tested and developed to the utmost; for this country, as well as England, teems with enthusiastic and wealthy amateur photographers of ability, who will eagerly embrace this opportunity for experimenting with a new and startling method of human portraiture.

At the next meeting of the New York Pathological Society, to be held at the Academy of Medicine on the evening of February 12, the special subject will be "Lesions of the Central Nervous System." Specimens will be presented by Drs. THACHER and VAN GIESON.

GENERAL MEDICINE

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Propagation of Tuberculosis by the Feces of Cattle.—CADIAC and BOURNAY (*Lyon méd.*, 1895, LXXX, p. 461)

The authors have already published experiments showing that tubercle bacilli, when ingested by the dog, traverse his digestive tube and are found intact in the feces.

Cattle, however, offer a fertile soil for the germ, and their digestive tract is admirably adapted to retain and absorb it. The paunch, with a capacity of nearly 250 liters, permits a prolonged accumulation of *ingesta*, while its many folds and deep honey-comb cells furnish convenient resting-places for microbes.

Many experimenters have proved that tubercle bacilli passing into the intestine are absorbed by the villi, but no efforts have been made to ascertain whether all or only part of these germs are thus removed from the gut. If not all, then it would seem possible for a phthisical animal, swallowing his pulmonary discharges, or eliminating tubercle bacilli from the surface of ulcerating Peyer's patches, to contribute to the dissemination of the disease through his feces. With this thought in view, the following experiments were made:

On the 3d, 4th, 5th, and 6th of June, at mid-day, a meal was fed to a yearling bull, consisting of bread and one-fourth of a cow's lung rich in tubercle bacilli. From the 6th to the 10th, inclusive, they collected, morning and evening, 200 gme. of feces, which they diluted with 100 c.c. of water.

The filtrate from this product, after standing 12 hours, was injected into the auricular veins of rabbits to the amount of 2 c.c. for each. Fifteen rabbits were thus injected. Two died of septicemia, 1 of intoxication, and the 13 others became tuberculous. Two died at the end of a month, presenting at the autopsy a miliary tuberculosis of the lungs. The 11 surviving ones were killed between the 9th and 15th of July, and showed tuberculous indurations scattered through the lungs, liver, spleen, and kidneys. In addition to these inoculations, a microscopical examination of the feces of the bull was made daily, resulting in every instance in the discovery of the Koch bacillus.

These experiments seem to demonstrate that the feces of cattle are as capable of propagating tuberculosis as are the *sputa* of man.

The Morphology of Pus of Different Origin.—W. JANOWSKI (*Arch. f. expt. Path. u. Pharmak.*, 1895, XXXVI, No. 1-2, pp. 8-44)

The author undertook to determine whether agents of different nature causing suppuration always gave rise to the migration of one or more varieties of leucocytes. In other words, he wished to learn whether pus excited by turpentine, creolin, mercury, etc., consisted of the same kind of colorless blood-corpuscles as does the pus produced by staphylococci, streptococci, typhoid bacilli, and other micro organisms. The material upon which this work is based was derived from more than one hun-

dred animals. The sum of the author's researches would seem to justify the following conclusions:

1. All suppuration begins by the collection of mononuclear cells at the point of irritation. These mononuclear cells are partly transformed into polynuclear cells in those tissue-areas most subjected to the injurious influences of the substance in question; partly, also, in the pus itself. For this reason all pus at first contains mononuclear cells in majority; or, at least, in significant number, but later almost nothing but polynuclear. This transformation of one form of cells into the other is quickly accomplished, in the course of a few days; but, *ceteris paribus*, it is the more rapid the stronger the agent exciting suppuration acts upon the leucocytes.

2. Besides the increase in the number of nuclei within the pus cells, there is also observed an increase in the amount of protoplasm and of a certain product of the latter which, in the majority of instances, proves to be neutrophile, rarely eosinophile, granulations.

3. The further metamorphoses in the pus cells consist of the gradual disappearance of the granulations and the disintegration of the nucleus and protoplasm. As a result of the destruction of the former (nucleus), chromatin spherules appear in old pus.

4. The above-mentioned metamorphoses occur in pus of parasitic origin within a few or a number of weeks; in chemical pus, on the other hand, they take place earlier. An explanation of this is given in the fact that pus of chemical origin contains chemical compounds in the serum in considerable amount, which destroy the tissue elements.

Of the substances known to the author, mercury, creolin, and lunar caustic exert the strongest action upon the tissue; therefore, the pus excited by them contains the greatest number of chromatin spherules, and shows greater indication of protoplasmic disintegration.

Abdominal Massage.—ROMANC (*Revue des Sciences médicales*, Oct. 15, 1895)

From numerous experiments, the author concludes that violent massage of the belly of the frog, continued for a short time without pause, produces an effect like that which GOLTZ found following repeated tapplings; *vis.*, persistent anemia of the heart, increased by the paralysis of the abdominal muscles.

The shrinking of the ventricles, which takes place during the massage, is followed after the operation by an increase in their volume. During gentle massage upon certain animals, the heart swells, its pulsations become less frequent, and may even stop. The circulation in the capillaries of the interdigital membranes becomes slow, then stops, during the massage, the vessels becoming dilated. After the massage and during the pauses it starts up violently. Arrest of the heart's action is peculiar to certain animals, in whom even very gentle massage in certain regions will produce it and maintain it even till death. Massage of the belly of rabbits causes a marked increase in the force of the heart-beats.

In dogs, the introduction of a cardiac sound indicates during massage a shrinking of the heart, a sort of tetanization, followed by a short slowing and then an arrest, corresponding to a strong elevation of blood-pressure.

Pressure in the carotids is constantly increased in the case of rabbits and dogs during light massage of the belly.

Neither gentle rubbing nor massage nor knead-

ing of the limbs furnishes results equivalent to those from massage of the belly.

The conclusion from these experiences is that massage of the belly possesses an elective influence upon the cardio-vascular apparatus.

In women the study of the capillary circulation by the aid of the plethysmograph gives the following results: Abdominal massage by circular frictions, light compressions, and compressive vibrations to the right and left of the promontory give as the minimum result vaso-constriction of the digital capillaries during the massage, and as a maximum result vaso-dilatation and increase in amplitude of the capillary pulse-waves after the massage.

The dynamogenic effects, evidently connected with an alternating vaso-constriction and vaso-dilatation of the mesenteric system, react directly upon the heart and the great vessels.

In 51 observations of gynecological massage it was demonstrated that the treatment had a remarkable effect upon the general health independently of the effect upon the local lesion, which in some cases was cured, in others remained stationary, in a few was aggravated.

The gynecological facies disappeared, the forces recuperated, sleep and appetite returned, and the pathological reflexes diminished.

Utilization of Fat in the Body When Injected Subcutaneously.—LAFAYETTE B. MENDEL (*Dietetic and Hygienic Gazette*, XI, '95)

Professor LEUBE, of Würzburg, in treating patients with a weak heart, incidentally observed that it was possible to make 20 or more injections of camphorated oil per day without calling forth any irritation of the skin or other disturbances. In an almost hopeless case 100 injections of the same oil were made per day on three different days with excellent results, and attention was thus called to the fact that 80 to 100 grm. of oil could be injected daily.

LEUBE instituted a series of experiments on dogs, in which the body-fat had been reduced to a minimum, to ascertain whether fat subcutaneously injected in such animals could be assimilated. Butter was selected for his experiments, since this fat contains—in addition to palmitin, stearin, and olein—glycerides of the lower volatile fatty acids in considerable quantities. A dog was fed on lean meat daily until the animal remained of constant weight for four weeks, and an absence of body-fat could thus be assumed, as the dog appeared extremely emaciated. In addition to the continued feeding of meat, liquid butter of about body temperature was injected daily beneath the skin of the limbs. A total of 3450 grm. of butter was injected subcutaneously. On post-mortem examination an abundant deposition of fat was found in the mesentery, about the heart and kidneys, as well as subcutaneous layers of adipose tissue in the region of the abdomen and back. The subcutaneous abdominal fat proved to be almost pure butter, the fat in the region of the back was about one-third, and the pericardial fat about one-sixth butter-fats; that of the kidneys and mesentery, however, did not differ materially from ordinary dog-fat.

In a second experiment, a dog, as before, was brought to constant weight and laparotomy performed; thus it was observed that fat was not present in the subcutaneous tissue and that mere traces were to be seen in the mesentery. The wound was again closed and healed rapidly. In the following one and a half months a total of 1400

grm. of fat was injected under the skin of the thigh, meat being fed as previously. During this time body-weight increased from 3.880 kilos to 5.360 kilos. A second laparotomy was performed, and it was now found that the subcutaneous abdominal tissue as well as the mesentery were now found abundantly supplied with fat. The wound was closed and a lean-meat diet alone was given; then the body-weight slowly decreased to 3.850 kilos. On post-mortem examination there was found to be a complete disappearance of fat from the tissues. The experiment shows conclusively that the butter fats subcutaneously injected were deposited in the tissues, and that the fat thus assimilated was completely utilized in body metabolism. At the end of three months only traces of the 1400 grm. of fat injected remained.

Regarding the subcutaneous absorption of fat, LEUBE thinks it as probable that this substance passes through the spaces of the connective tissue into the body cavities and thus farther.

Duration of Intubation of Diphtheria Patients Before and During Serum Treatment.—JOHANN BOKAI (*Deutsch. med. Woch.*, 1895, No. 46)

Before the introduction of serum the author intubated 673 cases, of whom 223 recovered. Under the use of serum he intubated 90 cases, of whom 45 recovered. After comparing these results and carefully reviewing the literature upon the subject, he concludes as follows:

1. The average duration of intubation in his hospital before the serum period was 79 hours, and 61 hours during this period. Accordingly, serum-therapy has reduced the average period of intubation in his cases 18 hours.

2. The duration of time before final extubation varies within very wide limits—in the author's experience between $\frac{1}{4}$ and 360 hours.

3. From the fact that the tube remained 120 hours, or longer, in 16.2 per cent. of his recoveries after intubation, he does not believe that secondary tracheotomy should be performed to prevent death, when final extubation is not advisable after 120 hours. According to his views, the time for tracheotomy cannot be definitely fixed. The presence of severe decubitus is an indication for the bloody procedure; but fear that this condition may appear is not sufficient to warrant tracheotomy.

The Effects of Insufficient Nutrition upon the Composition of Human Blood.—E. GRAWITZ (*Ber. klin. Woch.*, 1895, No. 48, p. 1047)

The observations were made on four persons. A diet scant in both albumins and carbohydrates was given one person working hard, while the other was kept at rest. In the second experiment a diet scant in albumin, but containing sufficient carbohydrates, was given to one person at work, while the other rested.

The only conclusion that these experiments would permit of was that when the diet is insufficient in albumin as well as carbohydrates, the blood takes up water. This may be due to absorption of water by the entire organism, but is certainly due to a diminution of albuminous substances in the plasma. Without doubt this will differ very much according to the individual.

The author concludes that scanty nutrition may produce an anemic condition of the blood, particularly if the albuminous substances are insufficient.

NEUROLOGY AND PSYCHIATRY

Department Editor
PEARCE BAILEY, M.D.

Collaborators
ALBERT WARREN FERRIS, M.D., LEWIS A. CONNER,
M.D., and THOMAS PECK PROUT, M.D.

Treatment of Epilepsy.—LUI (*Rev. sper. di Freniatr.*, Vol. XXI, f. 23; *Brit. Med. Jour.*, No. 1820, 1895, Sup., p. 79)

L. has been trying the treatment of epilepsy advocated by FLECHSIG and BECHTEREW. Three cases were treated by Flechsig's method, which consists in a preliminary course of opium in gradually increasing doses up to 1.15 grn. of the extract daily, followed by bromides, 7.5 to 8 grn. daily. During the opium course two of the patients had a slight lessening in the fits, while in the third they became much more frequent and intense, so that instead of having two or three a week he had five or six. Severe opium intolerance set in in one case, so that the drug had to be discontinued for a week. With the commencement of the bromide the fits ceased at once, and in one case have not reappeared after four months; in the two other cases the fits reappeared after two months, but much reduced both in frequency and in severity. Bechterew's method—the simultaneous administration of bromide and adonis vernalis and codeine—was tried in ten cases, and with diminution of the fits both in intensity and duration in each case. With this method there is none of the inconveniences that are liable to arise from opium intolerance, and on the whole the author is inclined to prefer Bechterew's method. He has little faith in the borax treatment of epilepsy. GUICCARDI, in the same review, gives an account of more cases of epilepsy treated after BECHTEREW'S plan. The author concludes that the good effects which follow are due to the bromide and not to the adonis or codeine. It appears to be better borne than simple bromide, and does not produce any ill effects, moreover, from the tonic effects on the vascular system due to the adonis. BECHTEREW'S treatment may have an advantage over the ordinary treatment in cases in which there is cardiac debility.

On the Relation of Sex to the Prognosis in Epilepsy.—WILLIAM BROWNING (*Am. Med. Jour.*, Dec. 14, 1895)

The author's experience with the two sexes in the treatment of epilepsy is stated as follows: In early epilepsy in the male, where there has been no organic change, there are considerable, perhaps even, chances of cure in the more favorable cases. In the less favorable cases, however, there is correspondingly less hope of cure.

In the female, on the contrary, the outlook, as presented by the author, presents a long line of failures. In attempting to account for this, attention is called to the fact that intoxication habits in general are less tractable in women than in men, and that the number of females in schools for feeble-minded who are capable of any real instruction is much below the males.

These matters, though hard to analyze closely, probably have a bearing on the main point raised. In this line the author considers the following suggestions:

(a) The suggestion of a greater strain placed upon the females at the age of puberty (HARE)

hardly calls for serious consideration. If such an element exists it would tend rather to produce an excess of epileptics in that sex than to any essential difference in the resulting disease itself.

(b) The influence of a possible hysterical factor is better worth attention. The author has often experienced some difficulty in determining whether or not it did exist in some female epileptics; while in the male, on the contrary, he has found epilepsy and hysterical epilepsy sharply separated.

(c) The power of habit in the female is greater than in the male.

(d) Finally, it is possible that failure of treatment in the female epileptic depends on some inherent fundamental condition, and that we can never expect to make it so successful as in the male. While there is a fair chance of cure in the most favorable male cases, we must expect little in the female, and remember it in prognosis.

Infectious Origin of Landry's Paralysis.—OETTINGER and MARINESCO (*Sem. mtd.*, 1895, No. 6)

Young man, with smallpox, was attacked by ascending paralysis, first of legs, then of arms, and later of respiratory muscles. Death in three days.

Autopsy showed a general perivascular infiltration of vessels of spinal cord, with areas of softening and degeneration of ganglion cells. The vessels contained thrombi and bacteria. The most marked changes were in the gray matter of the cord; the nuclei of the medulla and pons were affected, but not entirely destroyed. The changes in the ganglion cells were retrogressive; there was proliferation of the glia cells, but not of the ganglion cells. The authors conclude that Landry's, or acute ascending, paralysis is dependent on the action of bacteria. As there are a variety of bacteria which may cause the disease, so are there different clinical types.

Consciousness in Epilepsy.—SIEMERLING (*Med. News*, Vol. LXVII, 1895, p. 611)

As the result of a study of the derangement of consciousness observed in various epileptic conditions, SIEMERLING (*Berliner klin. Wochenschrift*, 1895, Nos. 42, 43) maintains that a dreamy state of consciousness, rather than total or partial amnesia, constitutes the most significant feature of the epileptic psychoses. Various gradations exist among the individual varieties of the so-called acute and chronic epileptic psychoses. Epileptic or epileptoid conditions and psychoses must be considered as symptomatic of cerebral disease. States of transitory confusion are characterized by the occurrence of apparently orderly, indifferent, and inconspicuous manifestations, side by side with unusual, unexpected actions, often of a violent character. Epileptic psychoses are always preceded by epileptic or epileptoid antecedents. Epileptoid conditions are more common than is generally believed, particularly vertiginous attacks. In the absence of epileptic or epileptoid symptoms the diagnosis must be based on other manifestations, such as amnesia, likeness of attacks, peculiarity of conduct, and of hallucinations.

Lumbar Puncture of the Subarachnoid Space.—

JACOBY (*N. Y. Med. Jour.*, LXIII, 1896, p. 11)

In an excellent paper on this subject, Dr. JACOBY summarizes the facts of his study and experience as follows:

By means of lumbar puncture, cerebro-spinal fluid can be easily removed from the subarachnoid sac of the spinal cord and from the cavities of the brain.

Therapeutically, it is only of direct value as a palliative through the reduction of increased pressure; it may, perhaps, prove of more service indirectly as the first step to local treatment of the cord and brain.

Diagnostically, it possesses great clinical advantages in the diagnosis of the various inflammatory affections of the cerebral membranes, and in the recognition of intraventricular hemorrhage as well as of hemorrhage within the spinal canal.

From the facility with which this little operation can be carried out it should not be long before lumbar puncture will form part of the routine work of every practising physician.

MATERIA MEDICA

Department Editor

WILLIAM FANKHAUSER, M.D.

Malaria and Its Treatment.—KLEIN (*Ther. Gaz.*, XIX, p. 748)

The author believes quinine to be the only means for the specific treatment of malaria. He prefers the hydrochlorate to the sulphate of this alkaloid, owing to the greater solubility of the former, and because of the larger proportion of quinine it contains. The tolerance for quinine by a patient suffering from malaria is much greater than that of a normal individual. The best time to administer the drug is immediately after the termination of the paroxysm, about an hour after sweating has ceased. The author administers 15 to 21 grn. of the drug, preferably in capsules. The dose for an adult should never be less than 15 grn., given once a day. If the chills do not recur for some time, the author then gives 12 grn. daily for three days, after this 7 grn. for three days, and gradually diminishes the dose; the treatment must not be stopped abruptly else the chill will return.

To ward off further attacks, to increase the resistance of the body, and to reduce the enlarged spleen, Dr. K. continues the use of quinine in small doses, just sufficient to keep the system under its influence. It may be given in pills, as follows:

Quinine Hydrochlorate 30 grn.
Extract Cinchona 30 grn.
Make 20 pills. One pill three times a day.

Or this mixture may be prescribed:

Quinine Hydrochlorate 30 grn.
Tincture Quassia 1 fl. dr.
Tincture Cinchona 1 fl. dr.
Solut. Potassium Arsenite 1 fl. dr.
Syrup Orange-flowers 1 fl. oz.
Water 5 fl. oz.
Two tablespoonfuls per day, before dinner.

If the hypertrophy of the spleen is of long standing, potassium iodide, in doses of 15 grn. daily, is of value. In addition to this internal treatment, local hydrotherapy should be employed. The patient should be upon the back naked, while 5 to 8 quarts of cold water are poured from a height upon the region overlying the spleen, and this should then be vigorously rubbed for five minutes. Sometimes the fever reappears after this treatment; it should be cured, and then the treatment renewed. After the hydrotherapy, the patient should take a walk or ride, for exercise.

The effects of the above treatment of the disease show themselves rapidly, it is stated, by return of appetite and improved condition generally. Sometimes, however, a change of air or even of habitation is required.

Grippe and Its Treatment.—G. LEMOINE (*La Clinique*, 1895, II, p. 165)

In the ordinary nervous form of influenza, the principal thing to observe, according to L., is strict hygiene to prevent the development of complications. The patient should keep to the room until entirely well, for it is often by a too early exposure to cold air that pulmonary complications are brought about. As a preventive measure against pulmonary and intestinal complications it is recommended that buccal and nasal antiseptics be carefully carried out. As an antiseptic mouth-wash, to be used several times daily, the author prescribes the following:

Benzoic Acid 1 gme.
Eau de Botot 50 gme.

For spraying the nasal passages and the throat, this solution is prescribed:

Potassium Chlorate 10 gme.
Glycerin 50 gme.
Distilled Water 250 gme.

Intestinal disinfection is maintained by means of benzonaphthol.

As to the internal medication in this form of grippe, Dr. L. begins with a large dose of a saline or an oily purgative, and then administers antipyrine. By preference, he prescribes the latter either in cachets, each containing 0.5 gme. ($7\frac{1}{2}$ grn.) of the medicament, four being given daily at intervals of four hours; or, with children, in solution as follows:

Antipyrine 2 gme.
Tincture Belladonna 20 drops
Syrup Gooseberry 50 gme.
Lettuce Water 70 gme.

or:

Antipyrine 2 gme.
Old Cognac 40 gme.
Syrup Acacia 20 gme.
Water 60 gme.

Antipyrine, he states, is especially indicated as a calmate when the neuralgic condition is pronounced. If, however, fever predominates, he has recourse to quinine given either alone or associated with antipyrine, as follows:

Quinine Sulphate 2 gme.
Extract Cinchona 2 gme.
Extract Aconite-root 0.001 gme.
Make into 20 pills. Six to be taken during the morning.

or:

Quinine Sulphate 0.2 gme.
Antipyrine 0.5 gme.
Sodium Bicarbonate 0.3 gme.
Make one cachet. Four such daily.

If bronchial catarrh develops, the author immediately applies revulsives to the thorax in the form of dry cups, mustard poultices, or friction with alcohol, and he prescribes hot foot-baths. At the same time considerable quantities of alcohol are administered to overcome the adynamia, which is always pronounced. After the fever has subsided and prostration alone is to be combated, cinchona may be given for the same purpose in the following mixture:

Sodium Arsenate 0.1 gme.
Alcoh. Ext. Cinchona 6 gme.
Glycerine 50 gme.
Syrup Orange-peel 250 gme.
Teaspoonful with each meal.

It is well to administer a mild purgative toward the end of the disease, to free the intestines from products of decomposition which may have accumulated there in spite of the benzonaphthol.

Evil Results of Nasal Applications.—BISCHOF (*Brit. Med. Jour.*, 1895, No. 1818, p. 71)

The author summarizes the occasional evil results of local applications to the nose. Otitis media following the nasal douche may be avoided by attention to the following points: The douche must not be at too high pressure, nor too prolonged; no swallowing or coughing to be allowed during douche; head to be slightly inclined forward; douche to be administered through the narrower of the two nostrils; nose not to be blown in the ordinary manner just after douche, but patient to close one nostril while he blows out through the other; fluid used, to be at first lukewarm, than gradually cooler; nozzle of douche not to fit the nostril tightly; cotton-wool to be worn in the ears after the douche.

Neuralgia results sometimes from allowing the stream of the douche to impinge on the roof of the nasal cavity; the nozzle of the douche should therefore be either horizontal or pointing downward.

Impairment or even permanent loss of smell may result from the use of too strong solutions of zinc salts or alum. Nasal insufflations less often give rise to trouble, but powders should be used as weak as possible, for the mucous membrane is sometimes very sensitive to the stronger powders; prolonged lachrymation with swelling of the whole nose, neuralgia of the fifth nerve, and sometimes even membranous rhinitis following their use.

Where chromic acid is applied to the nose, an alkaline douche should be used after the patient has blown the nose thoroughly; neglect of this has led to severe toxic symptoms, due to swallowing of chromic acid.

Adhesions between adjoining surfaces after use of caustics or galvano-cautery are to be avoided by application of ointments, and daily breaking-down of adhesions. Many nervous disturbances have followed the use of the galvano-cautery; for example, headache, neuralgia, asthma, and in several cases more serious and even fatal results, especially pyemia and thrombosis of cerebral sinuses. The danger of septic processes is still greater in operations on the nose associated with much bleeding; for example, removal of polypus or growth, correction of septal deviation, etc.

In view of such cases all instruments used for nasal operations should be sterilized, and the nasal cavities should be irrigated with antiseptic fluids after all such operations.

New Treatment of Diphtheria.—H. Koenig (*Sem. mcd.*, 1895, XV, p. cxcviii)

In treating diphtheria, the author has had recourse to a treatment by which he claims to reduce the mortality of this disease to 10 and even to 8 per cent. As soon as he has ascertained the existence of the disease, he has the child put to bed, and administers the following mixture:

Extract Juniper	5	to 10	gme.
Limewater	50	to 100	gme.
Distilled Water	50	to 100	gme.
Brandy	1	to 5	gme.
Antipyrine	0.2	to 0.5	gme.
Sodium Salicylate	1	to 2	gme.
Sodium Benzoate	1	to 2	gme.
Infus. Senna, comp	20		gme.
Syrup, Licorice	20		gme.

Teaspoonful, dessertspoonful, or tablespoonful (according to the age of the child) every one-half to one hour.

He continues the administration of this mixture day and night, without interruption, until the fever and the other morbid symptoms have sufficiently subsided.

The author neither cauterizes nor paints the throat, nor insufflates medicinal powders. Instead he prescribes a gargle of a 1 or 2 per cent. solution of potassium chlorate, with which he also sprays the throat and irrigates the nasal fossæ. He also applies a strip of plaster, of the width of two fingers, to each side of the neck, beginning from back of the ears and descending along the inferior maxilla to below the larynx. The plaster is covered with a piece of flannel, and kept undisturbed for two or three days. It is made according to the following formula:

Mercurial Plaster	2 parts
Soap Plaster	2 parts
Diachylon Plaster	1 part

The temperature of the room, Dr. Koenig states, should not exceed 21° C. (69.8° F.), and the air should be kept at a certain degree of humidity by spraying with a 1-per-cent. solution of sodium chloride.

In case the diphtheria is complicated with croup, Dr. K. administers inhalations of a 0.5 or 1 per cent. salt-solution, of limewater, or of a solution of potassium chlorate, and gives ipecac in the form of an infusion.

The author pursues the same course when treating the diphtheritic sore-throat of scarlet fever, but with the difference that, in order to prevent nephritic edema, he administers warm baths of 30° to 31° C. (86° to 87.8° F.), and of fifteen minutes' duration, and orders the patient to be wrapped in a damp sheet to induce abundant perspiration.

Potassium Arsenite in Pseudoleucemia.—KATZENSTEIN (*Medic. News*, 1895, LXVII, p. 582)

The author reports the case of a man presenting characteristic symptoms of pseudoleucemia in whom a cure was effected by the subcutaneous injection of progressively increasing doses of solution of potassium arsenite. For two months the patient had observed glandular swellings throughout the whole body, and for several weeks a sense of oppressive pain beneath the left costal arch. He suffered also from insomnia, anorexia, and debility, and his appearance was anemic, cachectic, and emaciated. Inguinal, axillary, cervical, and other lymphatic glands were enlarged, as was also the spleen. The erythrocytes numbered 4,720,000 to the cubic millimeter, the leucocytes 12,200. The former were free from poikilocytosis and nuclei. Some of the multinuclear leucocytes were eosinophilous. The patient complained besides of intense prurigo. Epistaxis recurred from time to time, and the lower extremities were edematous.

In the course of six months about one hundred injections of solution of potassium arsenite were made in the back on either side of the vertebral column, with the result of effecting disappearance of both objective and subjective symptoms. At first 0.1 c.c. (1½ min.) properly diluted was injected, and the dose was gradually increased every third day 0.05 c.c. (¾ min.) until 1 c.c. (16 min.) was injected daily, a free interval being permitted every two weeks. Finally 0.6 c.c. (10 min.), gradually increased to 1 c.c. (16 min.), were injected twice daily. Then the doses were gradually reduced until the treatment was discontinued, and the patient dismissed as cured.

At the time of report there had been no return of the symptoms for a year. The patient had a previous history of syphilis.

SURGERY

OPHTHALMOLOGY, OTOTOLOGY, RHINOLOGY,
LARYNGOLOGY, DERMATOLOGY, ORTHO-
PEDIC AND GENITO-URINARY SURGERY

Department Editor
SAMUEL LLOYD, M.D.

GENERAL, ORTHOPEDIC, AND GENITO- URINARY SURGERY

In charge of B. FAROUHAR CURTIS, M.D., T. HALSTED
MYERS, M.D., WILLIAM B. COLEY, M.D., GEORGE
KNOWLES SWINBURNE, M.D., E. M. FOOTE, M.D.

**Cocainization of the Nasal Mucous Membrane
Before and During Surgical Anesthesia.**—A.
G. GERSTER (*Ann. of Surg.*, Jan., 1896)

ROSENBERG, in an article published in the *Berliner klinische Wochenschrift*, Nos. 1 and 2, 1895, advocated the use of cocaine upon the nasal mucous membrane previous to and during anesthesia, claiming three from the following advantages:

1. As the patient's perception of the odor of the anesthetic is much diminished, the feeling of suffocation is entirely absent.
2. The stage of excitement is either short or entirely absent.
3. Vomiting during narcosis is rarer than usual.
4. Sickness following anesthesia does not occur.

GERSTER reports the results in 100 cases where this method was employed in the operating-room of the German Hospital, New York. A 5-per-cent. solution of cocaine was used. The patient freed his nose from mucus, and 2 ctg. of the solution were sprayed into each nostril. Two minutes later the process was repeated, one-half of the quantity being employed. Every half hour during the operation the nose is again sprayed and for the last time just before the patient leaves the table.

In 52 cases chloroform was given; ether in 24 cases, and A. C. E. mixture in 13 cases. In the other cases more than one of these anesthetics were employed.

It was found that the cocaine diminishes considerably the distress and oppression felt by the patient at the beginning of the anesthesia, and that the reflex irritation as manifested by struggling, coughing, and nausea is diminished.

In from 10 to 20 of the cases there were symptoms such as marked pallor and acceleration of the pulse-rate, followed by profuse sweating, which were considered directly due to the cocaine.

There was less nausea, vomiting, and malaise than usually follows anesthesia. (Vomiting is recorded as following in 25 per cent. of the cases.)

In alcoholic cases ROSENBERG's method affords little advantage over the usual anesthetization.

Auto-inoculation with Epithelioma.—CLAUDE and PILLIET (*Bulletin de la Société anatomique de Paris*; V. série, tome IX, p. 83, February, 1895)

A woman 57 years of age had a large epithelioma of the skin of the forearm, which had developed in the scar of a burn. This was excised, and a bridge-like flap having been raised from the skin of the abdomen by two parallel incisions, the hand was passed under this so that the wound on the forearm was covered and in contact with the raw surface of the abdominal flap. In some days the pedicles of the flap were divided, and the graft was found to be successful. One month after ad-

mission the patient was discharged with a small granulating wound on the forearm, the abdominal wound having healed. Within a week suspicious granulations were seen on the forearm, and the limb was disarticulated at the elbow. Four months after the first operation epitheliomatous granulations were found in the abdominal wound and a cavity of considerable size lay under the skin near by, containing a sebaceous-like, friable material. Two months later the patient died. The autopsy showed that the arm was perfectly healthy. The large ulcer on the front of the abdomen had spread upward and directly involved the sternum and ribs. There were no secondary deposits anywhere in the body. The microscopic examination of the primary and of the secondary tumor was the same—epithelioma of the skin.

A Report of 125 Cases of Hernia in which the Radical Cure was Performed.—LAPLACE, Philadelphia (*Atlantic Med. Weekly*, IV, No. 23, p. 353)

In concluding an article with this title the author says:

1. The radical cure of hernia, by Bassini's method, is a very safe procedure, fulfilling more nearly than any known method the requirements of a radical cure.
2. It is applicable in all inguinal herniæ, especially in the milder forms, in all cases protecting the patient against the possibility of strangulation.
3. The radical cure of hernia does not necessitate the non-recurrence of a hernia. The recurrence depends upon causes existing in the general condition of the patient—therefore not to be reached by the operation. These are: a weakened abdominal wall and an elongated mesentery.
4. After the operation the wearing of a light pad, massage and electricity applied to the abdominal wall will, by their nutritive effect, strengthen the parts, reducing to a minimum the dangers of a relapse.
5. In view of the practical harmlessness of the operation, whose mortality is *nil*, it follows that we should advise all those suffering with hernia, no matter how slight, to have Bassini's operation performed on them. They will thus be made secure against a possible strangulation, while the operation offers a speedy cure without risk to life.

Treatment of Gonorrhea with Argonin.—Dr. J. JADASSOHN (*Archiv für Derm. und Syph.*, 1895, p. 179)

J. believes that in argonin, a new preparation, a valuable addition has been made to the therapeutics of gonorrhea. Argonin, an unfortunate name, we think, in view of the fact that the name argon is given to the new chemical element recently discovered, is a combination of silver and casein, whose chemical properties have been described by Dr. LIEBRECHT in *Therap. Monatshefte*, 1895, June. It is described by J. as a white powder which is soluble in water by careful warming over a water-bath, and in concentrated solution is more or less opalescent and must be kept in a dark vessel. In solution its maximum concentration is 1 part in 10 of water. It is neutral in reaction, and 15 parts of the powder contain as much silver as 1 part of silver nitrate. A peculiarity of a solution of argonin is that no precipitate is formed either by the addition of sodium chloride or of albumin; on the contrary, the addition

of sodium chloride or of alkalies renders the solution rather clearer.

Its action upon the urethra, even in rather concentrated solution, is not very irritating nor escharotic, and causes but little pain and no inflammatory reaction. It possesses, however, no astringent properties. From experiments carried on in J.'s laboratory, it seems to possess powerful germicidal qualities, also some powers of penetrating the tissues, though less than silver nitrate or argentamine (a substance also in the experimental stage in Germany).

J. has used it in the urethra, both anterior and posterior, in men, and in the urethra and uterus in women, in a large number of cases, both acute and chronic, and is impressed by the rapidity of the disappearance of the gonococci.

For the anterior urethra he began with a strength of 15:3-4000, quickly increasing to 15:750-1000, and latterly has used it as strong as 15:500 up to 15:200, and states that even in this concentration and in fresh attacks there was very slight sensitiveness and no evidences of inflammatory reaction. The stronger solutions were used for the posterior urethra in men and in the urethra and uterus in women. He has also, with the idea of increasing the power of penetration of the tissues, made the addition of $\frac{3}{10}$ per cent. of liq. ammon. caustic. in both urethra and uterus in several cases, he thinks, with favorable results.

He has used it both by injection and irrigation, the injections being made by the patient 3 to 4 times a day, holding the fluid in the urethra for 5 to 10 minutes. The Guyon syringe is used for the post. urethra.

Though he believes this to be a valuable addition, he does not believe that it will necessarily entirely displace other methods that have been found valuable.

DERMATOLOGY*

In charge of HENRY W. STELWAGON, M.D.

Two Cases of Psoriasis Treated by Mercurial Injections.—J. BRAULT (*Ann. de Derm. et de Syph.*, 1895, VI, p. 676)

The author suggests that the use of mercurial injections for the treatment of psoriasis is empirical treatment. The two cases in which the drug was used are typical, one an old, the other a fresh, case. The yellow oxide of mercury was used to the exclusion of all other drugs. Both patients were young, 22 years of age; one had had the disease eight years, the other a few months. The initial dose in each case was 0.05 ctg., increased to 0.10 ctg. at the fifth injection. In both cases the eruption disappeared, the author concluding that subcutaneous injections of mercury have the power of blanching the lesions of psoriasis. Cure in these cases is not claimed.

The Relations Between Tuberculosis and Diseases of the Skin.—P. TOMMASOLI (*Monatshft. f. prakt. Dermat.*, XXI, 1895, 309)

Clinical experience in dermatology has brought out the fact that many cases of chronic dermatoses after a time develop some form of tuberculosis; this being particularly true in cases where the dermatological lesion extends over all, or almost all, of the

surface of the body. Foremost of all, in this respect, is pityriasis rubra. Besides this disease, in the order of frequency, are found dermatitis exfoliativa, impetigo herpetiformis Hebra, ichthyosis, pityriasis rubra pilaris, keratosis, pemphigus verus, psoriasis, eczema chronicus diffusus, and lichen verus. Erythema nodosum, especially in cases where repeated attacks occur, is found in patients who are already tubercular, or later develop tuberculosis, or show all of the physical characteristics that predispose to tubercular disease. Lupus erythematosus is also mentioned. A connection between tuberculosis and lepra has likewise been noted. The author states that when two diseases frequently occur at the same time, a simple coincidence cannot be looked upon as the cause, but one must ask if one does not predispose to the other. For the development of bacillus, the bacillus alone does not suffice; the individual predisposition must be taken into account. If tuberculosis and pityriasis rubra, as well as the other dermatoses mentioned, occur in the same patient at the same time, this is due to the fact that in their origin the diseases have something in common. These dermatoses are due to auto-intoxication. The various toxic substances which poison the body influence the epidermis, the skin sharing with the kidneys and the lungs in the process of excretion. The epidermis, therefore, is affected by the toxins, and becomes unhealthy. The toxic substances vary in their effect upon the skin—sometimes affecting it rapidly, at other times slowly, sometimes slightly, at others deeply. The pathological conditions resulting are likewise variable. Therefore, both in the skin lesion and in the tuberculosis the same factors of physiological predisposition are found. That is to say, these diseases occur coincidentally, and one slowly follows the other, not because of any interdependence between the diseases, but because a portion of their etiology is identical and the individual predisposed to the one is likewise predisposed to the other.

EYE AND EAR

In charge of WILLIAM OLIVER MOORE, M.D.

Serous Meningitis, Produced by Chronic Disease of the Ear.—(*Zeitsch. f. Ohrenheilk.*, XXVI, 2, 3)

LEVI reports the case of a male aged 35, who had polypi in the middle ear from an old suppuration, with signs of brain trouble, headache, vertigo, unsteady walk, and tendency to walk toward the left, with no rise of temperature. Later appeared stiffness of the neck, irregular pulse, vomiting, hyperesthesia of various parts of the body, nystagmus, and dilatation of the pupils. The mastoid process and tympanic cavity were opened and cleared, the patient dying suddenly after the completion of the operation. Autopsy showed caries of the middle and internal ears, passage of pus into the meatus auditorius internus through the opening in the wall between that canal and the cochlea, suppurative basilar meningitis, and chronic hydrocephalus internus.

Four Cases of Bilateral Glioma of the Retina Cured by the Enucleation of the Two Eyes.—(*The Brit. Med. Jour.*, No. 1817)

COLLINS first refers to the statement made by LAWFORD in his paper on the same subject, where he had shown that there was no authentic record of a case in which a gliomatous growth had recurred

* The editor acknowledges his indebtedness to Dr. E. H. KNIGHT for assistance in the preparation of this report.

later than three years after an enucleation of an eye for that disease.

Two were males and two females:

Case I.—Had right eye removed for glioma when five months old, and the left eye three years later. Three and one-half years after the removal of the second eye he was well, and there was no sign of a recurrence.

Case II.—A girl, the left eye excised for glioma when 5 month old and the right nine months later, four years and seven months later was in good health.

Case III.—A girl, left eye removed when 10 months old and right 13 months after, was found to be in good health four years after.

Case IV.—A boy, in whom both eyes were excised when he was 16 months old; three years and three months later he was in good health.

The cases are reported justly cured, as they all four were well and in good health after the longest interval at which there is any authentic record of a recurrence having taken place.

Choroidal Sarcoma in Infancy.—GRIFFITH (*The Ophth. Rev.*, Vol. XIV, No. 167)

The author relates two cases, one 2½ years old, with good family history; the eye was enucleated, and one year afterward the patient died, the growth having returned and filling the orbital space. The eyeball showed a non-pigmented growth situated outside the optic disc, growing from the choroid, which, having perforated the melanotic epithelial membrane of the retina, has formed a more or less circumscribed spheroidal tumor in the subretinal space. It consisted of round cells, uniformly distributed without any structural intercellular tissue, and was not very vascular. The stainings with logwood were uniform.

The second case was in a child aged four, both eyes having been previously destroyed by ophthalmia neonatorum; one eye had been previously removed for pain. The pain in the remaining eye led to the removal of it, and on examination the growth was a mass of large round cells with a granular intercellular cement substance, and in the front part, anterior to the lens, an alveolar arrangement of fully developed fibrous tissue, imprisoning some of the round cells. The cells penetrate into the substance of the cornea. In conclusion, he says the following may be mentioned as points of difference between retinal and choroidal sarcomata: Retinal growths are invariably composed of small, round cells, are liable to secondary degenerations, and show irregular staining of the cells; whereas those of the choroid are constructed of round cells of a larger size, are less prone to secondary changes, and have a tendency to rapidly infiltrate all the intraocular tissues.

NOSE AND THROAT

In charge of JAMES E. NEWCOMB, M.D.

Has Pregnancy any Influence upon the Development of Laryngeal Tumors?—FERRERI (*Archiv. Ital. di Otol.* III, 1895, p. 429)

The writer relates the history of a woman aged 34, of good antecedent history, who began to experience in the eighth month of pregnancy a gradual loss of voice and difficulty in breathing, but without pain, cough, or any general disturbance. The former symptoms gradually increased, leading in the course of 12 days to threatening suffoca-

tion, with cyanosis and sweating. Intubation was performed with relief, but after the tube was removed the hoarseness and slight difficulty in breathing continued, though, without the suffocative attacks. The pregnancy terminated successfully at full term, and the patient continued well for about two months, when the old symptoms returned, and she then came under FERRERI'S care.

He found the epiglottis normal, the vocal cords reddened and slightly thickened, especially the right. Below the cords and in the anterior half of the larynx there was visible during inspiration a large mass with smooth surface, sessile, solid, and with the mucosa covering it of the same color as that of the neighboring parts.

A diagnosis was made of subcordal fibroma, and owing to threatening asphyxia tracheotomy was immediately done. Later the tube was removed, but a fine wire was substituted and allowed to remain as a guide to the trachea. The mass was removed by cutting forceps (endo-laryngeal), and examination showed it to be of a fibro-myxoma. Recovery was uneventful.

To the author two questions suggest themselves: First, does pregnancy produce in the larynx conditions distinctly favorable to the development of tumors? and second, is this association of the two conditions a frequent one in clinical practice? We know that the sexual organs exercise, through the sympathetic nerves, a powerful influence upon the vocal apparatus. Pregnancy has also a marked effect upon the development of tumors of the thyroid. The gland diminishes in size after delivery and re-enlarges in a succeeding pregnancy, and the author believes that the same relation exists between the physiological uterine enlargement and intralaryngeal growths. As to the second question he proposes, he does not believe that a sufficient number of observations have been made to answer definitely.

The article also refers to observations made by other laryngologists, and a brief bibliography is appended.

The Relations of the Epiglottis to Unilateral Recurrent Paralysis.—(*Roemisch Arch. f. Laryngol.*, II, 3, p. 377, and III, 1 and 2, p. 68)

Out of 39 cases of this class of paralysis, the epiglottis was affected in 13. Sometimes, during quiet breathing, it showed lateral movement, bending, or turning toward the paralyzed side, or even toward the sound side. In phonation, 27 per cent. of the cases showed a spasmodic movement toward the healthy side. The writer discusses in detail the anatomical peculiarities, the muscular apparatus and innervation of the epiglottis, and concludes that the superior and inferior laryngeal nerves are differently distributed to this organ in different individuals, and that this variation in nerve-arrangement accounts for the different local appearances that the cases clinically present.

The second article continues the author's observation along the same line. On the paralyzed side there occur movements of the arytenoids, first of all, a trembling in phonation, and also in deep inspiration. Moreover, there are observed trembling movements of the cartilage of the affected side first described by SCHRÖTTER toward the median line, which occur at just the moment when the cords, after phonation, reassume the inspiratory position. The first-named movements probably have their origin in the preserved motility of the arytenoid of the paralyzed side. The variations in innervation of the

interarytenoid muscle in different individuals explain the variations observed.

The movements of the second and third varieties, which have been ascribed to the aspirative effects of the air-current, are regarded by the author as purely passive movements of purely mechanical origin.

OBSTETRICS; GYNECOLOGY; PEDIATRICS

Department Editor

THOMAS S. SOUTHWORTH, M.D.

Collaborators

GEORGE G. WARD, Jr., M.D., GEORGE R. WHITE, M.D.,
EDWARD N. LIELL, M.D., WILLIAM B. NOYES, M.D.

The Nature, Cause, and Treatment of Suspended Animation in the New-born.—J. DOUGAL BISSELL, of New York (*Medical Record* 1895, No. 22, p. 763)

While it is common practice among obstetricians of the present day to invert the child for a few moments to allow gravity to remove mucus from the air-passages before attempting any of the usual methods of resuscitation, yet to the author's knowledge no one has advocated the persistence of this procedure without the aid of any other method and with the principal object in view of encouraging circulation and thereby inducing respiration.

In an article by Dr. ALEXANDER MORRISON, published in February, 1894, he describes asphyxia neonatorum as a disease of the circulatory, and not of the respiratory, system. Dr. BISSELL has arrived at practically the same conclusion by a different line of reasoning and independent of any knowledge of Dr. MORRISON's work. The application of inversion to asphyxia neonatorum is the outcome of the author's experience with it in chloroform narcosis. He cites a case of suspended animation in a child one day old, in which the idea occurred of treating it as for a case of chloroform narcosis with cyanosis, the similarity of the two conditions suggesting the thought. Having successfully treated cases of chloroform-poisoning by suspension by the feet as suggested by NÉLATON, he resorted to that method. In a few minutes the respiration was resumed, although feeble, and the appearance of the child improved. On placing the child in a horizontal position, the asphyxia at once returned, to disappear again on again inverting the child. The child was kept in an inclined position on pillows for four hours, and gradually the horizontal position was resumed and the recovery was uneventful. The cause of the asphyxiated condition of the child was unknown.

The success of this method in this case led the writer to the study of the probable advantages of this procedure in asphyxia neonatorum.

In November, 1893, a suitable case presented itself. A child was delivered with low forceps, apparently dead, anemic to a marked degree, with complete muscular relaxation. No pulsation in heart or cord could be determined and no respiration. The child was suspended by the feet between the mother's limbs and enveloped with a blanket. Three minutes after birth a feeble gasp occurred, the cord was cut and the position was maintained for two hours and twenty minutes, until recovery. The child commenced to breathe by gasps, occurring every two minutes at first and gradually increasing. The child was seen in excellent health eight months afterward. Two other cases are reported, one being markedly cyanotic, both successfully treated by this method, and three other cyanotic cases are mentioned as

having since been treated by the author by suspension, with happy results. With the anemic type the author advocates immediate severing of the cord, while with the apoplectic form it is best to wait several minutes.

In handling the infant when adopting any of the usual methods of resuscitation, as SCHULTZE's, for instance, the child is naked and is thrown up and down through the air with considerable force which must necessarily cause a loss of heat, exhaustion, and physical injury. The writer mentions the objections to all the usual methods which have been recorded.

Suspended animation in the new-born may be due: first, to impairment of the umbilical circulation by pressure on the cord, etc.; second, to loss of blood from placenta prævia, or separation of the placenta before birth of the child; third, to shock following injuries, as from instrumental or manual interference. These may be classified under two forms; apoplectic or cyanotic, and anemic or syncopal.

The apoplectic variety is due to direct interference with umbilical circulation, and there exists superficial venous congestion, general stagnation of the circulation, and diminished supply of maternal blood. In the anemic form, when due to loss of blood alone, there is a depleted circulation and a deficient maternal blood supply; when due to shock alone, the maternal blood supply is lessened on account of the feeble heart-action of the child.

In both forms we find the circulation of primary consideration. The physiological cause of the first and subsequent respiratory acts, the writer believes, is due to the appreciation by the medulla, through the sympathetic nerves, of the want of a proper proportion of oxygen in the system. The respiratory center remains inactive during fetal life because the placental blood contains the required amount of oxygen.

The position of inversion effectually aids, by the action of gravity, the emptying of the contents of the liver into the heart, nourishing in turn that organ, and by continued action of the same law the flow from the heart to the medulla is materially assisted. Therefore, as the course of the blood from the liver to the inspiratory center is nearly direct, a greater quantity of blood, and consequently oxygen, is supplied to the nerve center in a given length of time by inversion than by any other position.

Pulmonary circulation is also aided by gravity in this position. Inversion is not associated with the slightest danger. Nature favors this position in utero. The value of inversion increases in proportion to the exhaustion, as, when the vitality is low, manipulation is detrimental.

The Bacteriological Examination of Nine Autopsies of Diphtheria Cases Treated with Antitoxin.—WM. ROYAL STOKES (*Bost. Med. and Surg. Jour.*, 1895, CXXXIII, No. 24)

There are two distinct forms of diphtheria: one a simple infection, with the bacillus diphtheria; the other, a mixed infection, with one or more of the pyogenic cocci.

GENESERICH in 25 autopsies of diphtheritic cases found the streptococci in the blood and internal organs of four cases, and in a number of others the staphylococcus pyogenes albei.

WRIGHT and STOKES, in 21 out of 31 cases, found a more or less general invasion of the internal organs by the pyogenic bacteria, especially by streptococci. REICHE found streptococci and staphylococci in 64 per cent. of the spleen and kidneys of 42 cases of diphtheria.

The bacillus diphtheriæ is found not only in the local lesions, but in the blood in various organs: in the spleen, cervical glands, sub-maxillary gland, lungs, and heart. It has been observed by various authorities in the liver (9 out of 29 cases) and kidney (6 out of 31 cases), in the lung (30 out of 31 cases).

As a rule the bacilli are only found in these situations in small numbers, and their occurrence here should not be considered as in any way tending to disprove the idea that diphtheria is essentially a toxemia. The bacilli must be considered as gaining admission to the circulating blood in a certain sense accidentally.

In nine cases of uncomplicated diphtheria to which antitoxin had been given, the bacteriological examination at the autopsy showed a more or less well-marked invasion of the blood by the pyogenic cocci.

In five cases the streptococcus was found in the liver, spleen, kidney, and blood of heart.

The pneumococcus was found only infrequently; twice in the kidney.

In one case the only organism present was the bacillus coli communis.

In the lungs of all these cases were found the bacillus diphtheriæ, streptococci, pneumococci, and staphylococcus pyogenes aureus.

The presence of these organisms enables us to understand the fatal issue in spite of the antitoxin given; for this agent cannot be assumed to act against any other organism than the bacillus diphtheriæ.

WELSH has published statistics of 7166 cases of diphtheria treated by antitoxin, with only 17 per cent. mortality, and 2276 cases not immunized, with 42 per cent. mortality. He considers antitoxin a specific curative agent for diphtheria, especially in the first three days, and he thinks the serum may prevent the development of secondary infections.

Occasional failure to cure diphtheria is probably due to the presence of other complicating bacteria mentioned above.

A Large Uterine Fibroid Complicated by Stone in the Bladder; Abdominal Hysterectomy and Litholapaxy; Recovery.—M. H. RICHARDSON (*Bost. Med. and Surg. Journ.*, Vol. CXXXIII, No. 25, pp. 619)

Reports an interesting as well as rare case of large uterine fibroma with vesical calculus complicating.

Hysterectomy was followed a week later by removal of the stone (which weighed 670 grn.) by crushing and evacuation. Patient had been married 28 years, was 56 years of age, and never pregnant.

Retrodisplacements of the Uterus; their Treatment by a New Method.—ERNEST F. TUCKER (*New York Polyclinic*, Vol. 6, No. 5, pp. 338).

The author refers to a method especially applicable to adherent retrodisplacements.

After referring to the old-fashioned treatment by means of tampons to cause a gradual absorption of adhesions in certain cases where time and expense are of no consideration, he rightly says the operation of forcibly breaking up such adhesions, under an anesthetic, by bimanual manipulations through the vagina and abdominal walls, seems to be rather a dangerous procedure, as few are gifted with that amount of diagnostic skill that would tell the size of,

or the amount of, adhesions present or the exact condition of the appendages.

After suggesting various drawbacks connected with ventro fixation and shortening the round ligaments, the author goes on to describe his procedure of overcoming adherent retro-displacements. Under anesthesia, the posterior vaginal vault is incised, the finger introduced and the adhesions between the uterus and rectum broken up; if the appendages are also included in the mass of adhesions these also can be freed.

After the uterus is well anteverted and the incision closed, a supporting tampon of iodoform gauze is introduced into the vagina to hold the uterus in the anteverted position; the patient is then made to lie on her side as much as possible while in bed, to aid in maintaining the uterus in position.

The length of time the tampon should remain depends upon the condition of the uterus and the judgment of the operator.

Any existing endometritis or cervical laceration may be attended to at the same sitting.

Though the author speaks of having performed this operation only a few times, his cases have so far proved successful.

[In its simplicity this procedure has certain advantages; the cases are, however, of too recent date to warrant definite conclusions as compared with more extended operations for like conditions.]

The Contagion, Mortality, and Prevention of Whooping-cough.—WILLIAM SWEEMER (*Atlantic Med. Week.*, 1895, IV, No. 20)

Pertussis occurs at all seasons of the year, from mild sporadic cases to severe and fatal epidemics. It is exceedingly contagious, but is pre-eminently a malady of early life. The contagious principle is probably contained in the exhalation and the vomited and expectorated matter, but has not been isolated as yet. It can be carried by an intermediate person to a child living remote from the original case.

The frequency of pertussis is well known. The laity easily recognize the characteristic whoop, and regard it as a trifling affection. This indifference leads to grave complications and dangers.

The death-rate ranges from 3 to 15 per cent. Under one year it is 30 per cent. and has reached as high as 48 per cent. in epidemics, according to the age and constitution of the infant or the presence of rickets, anemia, scrofulosis, and other previous sickness. It is said to cause one-fourth the mortality of London. In New York city the annual mortality in the last decade has been about 500. In Berlin, the mortality from scarlet fever and measles combined was 55 less than pertussis. In England, JOHNSON states that in 1876 there were 10,201 deaths from pertussis, and 11,045 deaths from scarlet fever.

In the United States, the census of 1880 and 1890, gave the second place to pertussis.

In Chicago, the death-rate of the last 10 years gave scarlet fever 2651, pertussis 1628, and small-pox only 1072.

These alarming statistics would suggest careful prophylaxis and as rigid isolation as in the other contagious diseases, and especial attention to exposure in schools or other public places.

A Chinese Doctor.—Dr. Yung Mun Fueng, a graduate of the Royal Medical College of Canton, was recently registered as a practicing physician in St. Louis, and expressed his determination to open an office there.

SOCIETY MEETINGS

NEW YORK ACADEMY OF MEDICINE.

SECTION ON GENITO-URINARY SURGERY

January 14, 1896

ALEXANDER W. STEIN, M.D., Chairman

The Technique of Amputation of the Penis

Dr. RAMON GUITERAS: I shall consider simply the anterior operations, and not the so-called extirpations. Many methods of performing this operation have been devised, showing that the results are not satisfactory. Among the various operations are amputations by ligature, *écraseur*, galvano-cautery and galvano-*écraseur*, and by the knife. The various writers agree on one point, *i.e.*, that the urethra should be cut longer than the corpora cavernosa. The principal complications of the operation are: hemorrhage, retraction of the orifice of the divided urethra within the stump, contraction of the urethral orifice by cicatricial tissue, and the wetting of the wound by the urine. To overcome the hemorrhage it is necessary to tie a rubber band or catheter about the base of the organ until the amputation has been completed, when the dorsal arteries and those of the cavernosa are to be ligated. The second complication can be guarded against by cutting the urethra half an inch longer than the corpora cavernosa. Surgeons generally seek to avoid cicatricial contraction by slitting up the urethra on its dorsal aspect, and stitching the mucous membrane to the skin. This certainly makes a larger orifice, but the urethra is more or less distorted and a still longer stricture is liable to occur there. I do not think that any device can be resorted to by which the orifice will not contract, and that if this method be followed there will be a stricture of the orifice extending upward for half an inch. The simple union to the skin seems to me to be better, and then if stricture occurs the meatus can be divided. The wetting of the parts with urine always interferes with union. It has been advised to leave a soft catheter in the bladder for two days, but it is an inconvenient method. If it is employed, the catheter should be plugged, and the bladder only evacuated about every four hours. The retention of the catheter by its pressure tends to cause a slough about the sutures. It is advisable to keep the parts clean by frequent washings with boric acid.

The following is the technique I recommend: The parts having been thoroughly cleansed surgically, a rubber band is tied about the base of the organ, and the circular incision is made through the integument, and the latter dissected back three-quarters of an inch. A No. 20 French sound is passed into the urethra, and held so that the penis is at right angles to the body. A straight bistoury is then inserted, with the cutting edge pointing upward, just above the point where the flap is rolled back. It is worked behind the urethra between the corpora cavernosa until it comes out at the corresponding point on the other side. The knife is then turned and the corpora cavernosa are divided. They are then dissected away from the urethra for half an inch, when the knife is again turned and brought out through the urethra. The operation really consists in an amputation of the anterior part of the organ, leaving a stump with the urethra half an inch longer, and the integument three-quarters of an inch longer than the remainder. The dorsal arteries and arteries of the corpora cavernosa and the artery of the septum are ligated, and oozing controlled by the application of hot water and the pressure of the skin flaps and

bandages. Fine silk sutures are passed through the integument and urethra at each extremity of the canal. These are then tied. The integument above and below the urethra is then sewn together with a continuous silk suture. The urethra is next put upon the stretch, and four sutures of fine silk are passed through the integument and urethra. The sutures are pulled up in the middle, cut and tied on either side. Thus, the skin and urethra are held together by eight sutures. The parts are then washed with sterilized water, and a sound passed through the new canal into the bladder. A No. 15 French catheter is then introduced and left for a few days. The catheter is plugged, and this is removed every four hours to allow the urine to escape. The parts are supported by a T-bandage. Extirpation of the inguinal glands is performed in the case of amputation for malignant disease.

Dr. R. W. TAYLOR: There is a fatal point in this operation; for in many cases in which amputation is required, the penis is so distorted, bent, and fungoid that the urethra cannot be found, or, if found, it is so occluded that a sound cannot be passed into it. For this reason this method of operating would only be admissible in the exceptional cases in which this stenosis is not present. I have amputated the penis many times, and I think the method employed will always give good results. After crowding the integument back toward the pubes, and crowding the corpora cavernosa forward, I pass through the corpora cavernosa in an oblique manner from right to left one shawl-pin, and from the other side, another pin, thus forming an X. By this means one secures perfect control of the organ. The skin and corpora cavernosa are cut through, and then an incision is made along the upper wall of the corpus spongiosum. The remainder of the incision is continued underneath the rest of the corpora spongiosum, but not cutting into it. The urethra is cut off squarely, leaving an excess of three-fourths of an inch. On the removal of the pins, the integument of the penis will push forward, forming an overlapping integumentary flap. The flaps should be made in accordance with the direction of the urethra. In almost all cases there will be some stenosis, but this is not from the urethra itself, but from the contractility of the surrounding fibrous tissue during the process of healing. By an early resort to dilatation with gum elastic bougies, this stenosis can be readily overcome.

Dr. L. BOLTON BANGS: I have followed the method described by the last speaker, and have found that it is a very satisfactory way of controlling the organ. I cannot recall any case in my experience in which there has been any serious contraction of the urethra, although there has been sufficient condensation of the aperture to project the stream. I remember assisting in an operation performed by Dr. F. N. Oris, in which the corpora cavernosa were divided very slowly with the galvano-cautery. This prevented secondary hemorrhage, and the result was very good.

Dr. GUITERAS: In amputating the penis for cancerous growth one will in any case remove the end of the organ, hence the mutilation of that part is not of importance. The probabilities are that if a man can urinate through the urethra, some small instrument at least can be passed through it, and this can be used as a guide for the introduction of a larger instrument, or to steady the organ while the corpora cavernosa are being cut through. A No. 10 or 12 French will be sufficiently large for this; it is not necessary to have a No. 20 French. If nothing can be passed through the urethra an amputation can be made directly through the organ, the integument

having been first dissected back for three-quarters of an inch, the anterior one-half inch, the corpora cavernosa are then severed, and the urethra made fast to the integument as already described. I do not consider the technique of such a procedure, however, as good as the one described in the article of this evening.

GENERAL MEETING

January 16, 1896

JOSEPH D. BRYANT, M.D., Chairman

Empyema

THE BACTERIOLOGY OF EMPYEMA IN CHILDREN

Dr. HENRY KOPLIK: The study of the bacteriology of pleuritic exudates has been advanced very materially in recent years. We must remember that the pleuræ are closed cavities; and the micro-organisms found in these cavities have been attributed to various sources. Thus, we find empyema associated with tuberculosis of the pleura, following tuberculosis elsewhere; and intestinal sepsis, either following gastro-enteritis or complicating typhoid fever. Though empyema may complicate or follow a pulmonary affection in a large percentage of cases, there are many in which this is not the case. The infections of the pleura producing purulent pleuritis are: (1) Metapneumonic; (2) streptococcus infections; (3) tubercular infections; and (4) fetid empyemas.

In some subjects there is a natural immunity to further infection with the pneumococcus after the pulmonary infection has reached a certain stage of severity. The same may be said of the cases in which there is a large serous exudate which does not become purulent. In such cases absorption can result. In metapneumonic empyema, however, the pneumococcus may from the first infect the lung so slightly that the resulting pneumonia may give rise to no symptoms. It attacks the pleura at the very outset with great severity. These cases are quite common in children. I have found in 15 cases of empyema in children that 9 contained the diplococcus pneumonæ in pure culture, or 6 per cent. We have no definite figures as to the mortality of these metapneumonic pleuritis; but they may be said in a general way to follow the death-rate among adults, or have a mortality of two or three per cent. The pneumococcus is not always found pure in metapneumonic cases; in 3.6 per cent. it is associated with the streptococcus. The latter cases present the same prognosis. Cases of staphylococcus infection of the pleura may result from a lacunar amygdalitis. A slight streptococcus infection of the throat in children may give rise to infection of the pleura. A slight infected wound may be sufficient to cause the streptococcus empyema. There is a group of empyemas in children due to the streptococcus, which must be considered as a variety apart from those already mentioned (I refer to the empyemas associated with severe septic infection in children); e.g., osteomyelitis, scarlet fever, etc. Here the streptococcus is especially virulent, and the prognosis is quite grave, as these empyemas are only an indication of the general streptococcus invasion. A third group of empyemas is characterized by the occurrence of the tubercle bacillus. The tubercular empyemas are accompanied by a great thickening of the pleura and the formation of immense layers of tubercular tissue. It has been supposed by EHRLICH that the tubercle bacilli become entrapped in these extensive adhesions, and are so filtered out from the general exudate. The tubercular empyema in childhood is less frequent than the preceding varieties of em-

pyema thus far considered. I found only 1 tubercular empyema out of 15 consecutive cases of empyema in children. Though the prognosis in tubercular empyema is bad as a rule, a few cases do fairly well. A fourth group of empyemas is the fetid empyemas. These may be divided into: (1) those in which the empyema has run an ordinary course and has been due to the streptococcus or pneumococcus, and (2) those in which a mixed infection has resulted. In some of these cases a bacillus resembling an ordinary saphrophyte has been found; in others, bacilli resembling the bacillus coli. In other cases there is at first a tubercular empyema, and immediately after operation it is found to be putrid. In children most of the empyemas which have come under my observation, and which have attempted to cure themselves by perforation through the lung, have been putrid. In one case a spontaneous cure was effected in spite of the mixed infection and the fetor. In considering the bacteriology of empyema in children the chief point is the prognosis. NETTER says that in children the pneumococcus empyemas occur in 53.6, the streptococcus in 3.6, the staphylococcus 17.6, and the tubercular 14 per cent.; whereas in the adult the pneumococcus empyemas are found in 17, the streptococcus and staphylococcus together in 56, and the tubercular and putrid in 25 per cent. EICHHORST says tubercular empyemas in adults occur in 65 per cent. In children fully two-thirds are metapneumonic. According to GERHARDT, most of the pleuritis are purulent.

THE DIAGNOSIS AND PECULIARITIES IN CHILDREN

Dr. AUGUST CAILLÉ: Physical diagnosis as applied to the thorax gives such positive evidence of abnormal conditions that it would seem almost impossible to be in doubt regarding the pleuritic exudate in a given case; nevertheless such mistakes are of great frequency. The infection of the pleura is occasionally primary, but more often is through infection from the lungs, or by metastatic processes. Exposure to cold should be looked upon as only a predisposing cause. I have seen two cases of acute purulent pleurisy in young adults, both terminating fatally within a week, notwithstanding prompt and free drainage. I have observed two cases of double empyema develop in connection with typhoid fever. Cold and damp weather predisposes to empyema, and hence we see more of these cases in February, March, and April than in all the rest of the year. Empyema is a common disease in children under five years. Of 80 cases coming under my notice, 67 were under five years of age. In a general way it may be stated that one-third of all the pleuritic effusions in children are of the nature of pus or sero-pus. In gangrene of the lungs, or pyothorax due to traumatism, the pus is apt to be stinking. Occasionally inspissated pus is found. A chylous effusion has been observed and mistaken for pus. The quantity of pus not infrequently reaches one to three pints. The empyema may be unilateral, bilateral, multilocular, and encapsulated, in which case one pus sack may be opened without draining the other.

A purulent fluid is distinguished from a serous fluid by the aspirating-needle alone, and not by any set of signs or symptoms. The presence of peptone in the urine is by no means a distinguishing feature. We must always bear in mind the occurrence of hydrothorax, free or sacculated, in consequence of disease of the lungs or kidneys. Subacute pleuritis with irregular temperature, pain, cough, and dyspnea will be readily recognized by a careful observer. The change of a simple pneumonia into a

pleuro-pneumonia is also not difficult to recognize. With simple pneumonia the child cries readily without pain, whereas a child with pleuro-pneumonia gives evidence of pain when handled or coughing, and the respiration is painful and embarrassed. The puzzling cases are those in which a critical deferescence takes place with persistence of the dullness, or where there is an irregular temperature persisting.

On inspection we find lateral curvature of the spine, bulging of the affected side, bulging or retraction of the intercostal spaces on inspiration, displacement of the heart, dyspnea, etc. All of these symptoms may be present, but most of them may be absent, in empyema. Moderate dyspnea and bulging of the affected side are usually present with pleuritic effusion. Pallor and loss of appetite are generally noticeable in pyothorax. Cutaneous edema and enlarged veins are occasionally present. Lateral curvature of the spine is seen in cases of long standing, and particularly where there has been a sinus for a considerable time. The fever in pyothorax is irregular, and sometimes absent, as in cold abscesses in other parts of the body. I remember seeing a boy, playing in the street, smoking cigarettes, and yet he had two pints of pus in his thorax and no fever for a week before operation. On palpation, if there is fluid, we find bulging of the lower intercostal spaces on inspiration, and absence of vocal fremitus. The diminished fremitus in the presence of thick exudates cannot be relied upon to distinguish serum from pus. In some cases there is only a relative diminution of the fremitus as compared with the sound side or other parts of the affected side. In order to detect the fremitus, the child must be made to cry. On auscultation, we observe an absence of the respiratory murmur in most instances. A thin layer of fluid surrounding the lower part of the lung will now, however, obscure the breathing sounds. Tubular breathing may be heard over the fluid, being transmitted from the lungs on the affected or opposite side, and is due to compression or inflammation of the adjacent or underlying lung. Catarrhal pneumonia, with hydrothorax, will give all the usual varieties of râles. Friction-sounds are heard before and after exudation, but not over fluid. Diminished vesicular breathing and fremitus with dullness indicate thickened pleura. Egophony is occasionally heard in the axillary line in the presence of large exudates. Amphoric breathing is occasionally met with in children, and is principally misleading when associated with a "cracked-pot" sound on percussion. Bronchophony is heard over consolidated lung, but not over fluid. On percussion, we note flatness and marked resistance to the finger when there is fluid in the thorax. On the right side this merges into the area of liver dullness. A rachitic chest gives apparent dullness. Apparent dullness on the right side posteriorly in children is not always pathological. A consolidated lung, a thickened pleura, a hypostatic pneumonia, or a pulmonary edema elicits dullness on percussion. In the presence of a thin layer of fluid forced percussion brings out the resonance of the underlying lung. When the lung is compressed upward by the fluid, the lower area is flat on percussion, with absence of breathing-sounds, whereas at the upper part there will be increased respiratory sound. With apex dullness and absence of fremitus and breath-sounds, a localized anterior abscess may be suspected. The degree of dullness and the resistance on percussion depend chiefly upon the thickness of the layer of fluid. The change of level in the fluid by change of the position of the patient is not very distinct in children.

When an unresolved pneumonia is suspected, and an empyema is overlooked, there is usually a history of pneumonia with critical deferescence and a subsequent rise of temperature, with continued dullness on percussion. When we suspect fluid, we can establish a positive diagnosis best by the aspirating-needle. The site of the proposed puncture is cleansed with ether and bichloride, and the arm is held upward by the nurse. The physician presses his fingers into the selected space and plunges a clean needle into the chest for one or two inches. Lateral movements of the needle are not allowable except the needle is actually in a pus cavity. A serous exudate mixing in with a few drops of antiseptic solution in the syringe may be mistaken for pus; hence, the fluid should be examined with the microscope. After puncture the site should be covered with adhesive plaster, or with a piece of gutta-percha tissue made sticky with a few drops of chloroform. If the puncture on the right side be not made below the eighth intercostal space, there is little danger of injuring the liver.

In cases of multilocular empyema, the presence of pus is readily detected by the needle, but the sacculated condition is first made apparent at the operation, and requires multiple incisions. A pulsation sometimes observed in empyema is due to the transmission of the pulsation from the heart.

The prognosis of empyema in children, if properly treated, is quite good. In some cases there will be a fistula for a considerable time. Even in desperate cases incision should be promptly resorted to. A perforation into a bronchus may exist without allowing exit of pus until the intrathoracic pressure is reduced by incision. Secondary abscesses following empyema are quite common. It is difficult to understand the reinflation of the lung in the presence of an opening in the thorax; it can be explained only by the mechanical effect of forced inspiration. During the act of coughing, the glottis is closed and the air is driven in the direction of the least resistance, i.e., from the sound to the affected lung.

THE TREATMENT OF EMPYEMA IN CHILDREN

Dr. JOSEPH E. WINTERS: The natural history of empyema furnishes clear indications for treatment. There is no doubt as to the disastrous termination of almost all cases of empyema left to themselves. Our treatment must secure removal of pressure from the lung, and perfect drainage with antiseptic precautions. The object of treatment is to remove the pus, prevent reaccumulation, procure complete re-expansion of the lung, and leave behind no deformity. Empyemata do not heal from the bottom, but by the expansion of the lung and ascent of the diaphragm. In all recent cases there is more or less complete re-expansion of the lung on the withdrawal of the pressure that has been exerted by the fluid. The fluid is expelled by the expansion of the lung. Repeated aspirations before the operation reduce the pressure, and therefore reduce the forcible expansion of the lung at the time of incision. Operative interference must be delayed as little as possible after the inflammatory process has subsided. I believe that early diagnosis and prompt treatment have more to do with the present decreased rate of mortality than improved methods of treatment. Estlander's operation is excision of portions of ribs so as to allow the chest to fall in on a lung that cannot expand. At present there is, it seems to me, too great a tendency to resort to this operation in recent cases. Falling in of the chest-wall in such cases is not desirable. The mortality after this operation becomes progressively higher in pro-

portion to the age, reaching 80 per cent. in children under two years of age. On the other hand, after simple incision it is only 25 per cent.

The incision should be at least 2 in. above the base of the cavity. On the left side the incision should be 2 in. above the base of the normal thoracic cavity on the right side; if on the right side, it should be done 3 in. above the base of the normal thoracic cavity on the left side. Where there is no cyanosis, an anesthetic may be used, and for this purpose chloroform is preferable; but the patient should not be fully anesthetized, as it is desirable that coughing should take place so as to assist the expulsion of pus. At the time of the operation the aspirating-needle should be introduced; and if pus is found, the needle should be allowed to remain as a guide. The incision should be at least 2 in. long. The patient should be placed close to the edge of the table, on the affected side. This is safer for the patient, and it also favors a more complete immediate emptying of the pleural cavity. Having secured a thorough evacuation, careful irrigation of the cavity may be made, in order to insure the complete removal of the coagulated portions. It is not dangerous with the patient in this position, and if hot water be used. Immediately after opening the cavity a teaspoonful or more of whisky should be given undiluted—not only for its stimulant effect, but to excite coughing and crying.

What is the method by which healing is effected?

(1) Expansion of the lung is the most efficient aid in securing it; (2) by the ascent of the diaphragm; and (3) by the falling in of the chest-wall, which is not to be desired until the lung has expanded as much as possible. Rib resection is unnecessary in recent cases. During convalescence massage and chest movements are desirable. Forced expiratory effort, as blowing on wind instruments, is an aid in causing expansion of the lungs.

DISCUSSION

Dr. A. JACOB: It has been said here that in proportion as the diagnosis of empyema has been promptly and accurately made, the term "chronic pneumonia" has been less frequently heard. I believe this to be true, although we should not forget that there is such a condition as chronic pneumonia. One of the speakers stated that when fever lasted for a number of weeks and was associated with dullness, this indicated pleurisy. That is not necessarily the case. Persistent fever may be from peribronchitis; there may be inflammatory thickening of the bronchial walls, and peribronchial infiltrations; and this may well be called chronic pneumonia. In these cases, from the very beginning, we have to deal almost entirely with interstitial proliferation and exudations along the bronchi. These cases are apt to have fever, and exhibit dullness for six or eight weeks, and then recover by hypertrophy of the newly formed interstitial tissue, contraction and cicatrization of this tissue, resulting in bronchial dilatation or in retraction of the upper lobes of the lungs, prolonged respiration, and bronchophony. I do not think these interstitial pneumonias are at all rare, nor are they difficult to distinguish from incipient tubercular infiltration of the upper lobes.

Dr. B. SCHARLAU: In studying my hospital records I find that during the last five years I have operated on over 200 cases by resection of ribs; whereas in former years I have employed aspiration, permanent drainage, intercostal incision and rib-exsection alike, thus giving evidence that I have not been prejudiced for or against any special

method of treatment. The reason for confining myself now entirely to exsection of the rib is the acknowledgment of its superiority. An empyema must be treated like any other abscess. We must secure the best drainage, and, having to deal in over 50 per cent. of the cases, not only with a purulent effusion, but also with large clots of coagulated fibrin, we must give these a chance to escape thoroughly; for this end a large opening by rib-exsection is preferable to a comparatively small opening in an intercostal space. Recovery is much more rapid after exsection. I have seen a child get well within 11 days, and many in less than three weeks, whereas after simple incision recovery has often been delayed for six or eight weeks. In my experience the removal of a portion of one rib never leads to malformation,—a fact due solely to non-expansion of the lungs, and sinking-in of the chest-wall to allow of the forming of adhesions between the lungs and the thorax. At times, under simple incision, there may be considerable hemorrhage from the intercostal muscles, and this is not so easily controlled where the rib is not exsected. Most of those who favor simple incision have never given exsection of the rib a fair trial; if they would, they would never return to their old love.

Dr. W. P. NORTHRUP: We should, it seems to me, in discussing this subject, first explain what we mean by the term "children"—in other words, we should distinctly limit the age of the patient. My observations on empyema have been mostly on children under three years of age. Next to tubercular meningitis, in a child under eighteen months, to determine whether a one-sided dullness is fluid or pneumonia is one of the most difficult problems. I think I may state that both Dr. O'DWYER and I have found a great many cases, in children under one year old in which we have been unable to make the diagnosis confidently without the aid of the exploring-needle. Even then the pleural exudate may be of such consistency as to leave the aspiration test inexact. Among the physical signs perhaps the most important are one-sided dullness and the absence of vesicular respiration. In many cases I cannot distinguish the bronchial element behind a moderate effusion from that of a simple pneumonia. In employing exploratory puncture it is very common to use too small a needle, to insert it in the wrong place, and to make but one puncture. A very large needle should always be employed for this purpose, and the instrument and the site of puncture must be carefully sterilized. Several punctures should be made if no fluid is found at first, in cases where the physical signs strongly point to effusion. There seems to be considerable difference of opinion as to the location to select for the operation. We have found, at the New York Foundling Asylum, that in recent cases wherever the drainage opening may be located, a simple pleural empyema will drain perfectly. I say this after careful experimentation and observation. I assert, therefore, that you may operate wherever you find it most convenient, provided it is sufficiently high so that the diaphragm does not ride up and occlude the tube. The sixth space has seemed to be a good location—from anterior to posterior line. I should say that for children under two years of age it is best to make an incision not quite two inches long, and insert two drainage tubes. Excision of the rib has not been practiced recently at the Foundling Hospital in these young children. When these cases are operated early, the prognosis has been favorable.

Dr. HENRY DWIGHT CHAPIN: I think when expert clinicians acknowledge great difficulties in diagnosis

in connection with this condition, the value of such a discussion as this is manifest. It has seemed to me that there is no one disease in which children lose their lives more often, owing to the true nature of the trouble having been overlooked by the physician until it is too late, than in this. In general, it may be said that the younger the subject the more difficult is the diagnosis, owing to the uncertainty in interpreting the physical signs in these little ones. In my experience, we do not find bulging of the chest from a moderate amount of fluid in infants, and the reason is that the lung is the direction of least resistance. In the majority of cases in young subjects we hear bronchial breathing all over the area of fluid effusion owing to the transmission of this sound from the carnified lung. These considerations show the importance of an early resort to exploratory puncture, and I agree with Dr. NORTHROP that the needle should be a large one. I have never seen any harm follow such punctures. From my clinical observations I would say that the majority of cases of empyema in children follow a catarrhal or croupous pneumonia. When the physical signs of pneumonia persist for an unusual time, we should resort to the needle to be sure that there is no empyema. I believe that if, while carefully watching a case of pneumonia in a child, we find dullness beginning at the apex, we have good reason for believing that there is effusion, and that the lung is being pushed upward and consolidated. About two years ago, at a discussion of this subject before the county society, almost all the surgeons favored exsection of a rib, and the physicians favored simple incision. After this meeting I employed exsection of the rib in a number of cases, but was disappointed to find that in several instances sinuses persisted. As I have seen this result in the hands of expert surgeons, I felt that this could not have been due to my method of operating. As my cases have recovered satisfactorily from simple incision, I see no advantage in exsecting a rib,—provided, of course, that the incision be made sufficiently free to allow of the evacuation of large coagula.

The President: I discussed the technique of the operation at the discussion before the county society. My experience has convinced me that recovery is more rapid after rib-exsection.

Dr. FLOYD M. CRANDALL: One of the important points brought out in this discussion has been that empyema in children is almost uniformly secondary, and in very many instances, to pneumonia. This is one of the reasons for the frequent errors in diagnosis, the physician resting upon the original diagnosis of pneumonia without observing the change that has taken place. This should also lead us to be charitable toward our brother physicians, as an early diagnosis of pneumonia was probably correct even when empyema is found later. I fully agree with those who have spoken of the great difficulty of diagnosing empyema in young infants.

Dr. CAILLÉ: During the past few years irrigation has been almost abandoned, because it breaks up the adhesions between the lung and chest-wall—a most harmful result. Irrigations are now used only in bad septic cases. I admit the difficulties of readily interpreting the physical signs, and would recommend that, just as soon as there is doubt about the diagnosis, the needle be employed.

Dr. WINTERS: I believe that in children under two years the death-rate from rib-resection is 80 per cent., and in children under three years of age nearly 60 per cent. The death-rate from simple incision in these children is only about 25 per cent. I believe

rib-resection should only be practiced as a secondary measure after complete expansion of the lung. During the past summer I made careful inquiry on this point in Europe, and I learned that exsection of the rib as a primary procedure had been given up in most of the hospitals of Europe. In the Great Ormonde Hospital, London, it was still practiced; but the house physician who had watched this method of treatment for three years, and had seen its workings in another children's hospital previously, said that he was very thoroughly convinced that rib-resection should not be practiced in recent cases. It seems to me that the difficulties of diagnosis of fluid accumulations in young children have been somewhat exaggerated. If you are careful to secure deep inspiration by pressing upward the diaphragm with your fingers, you get a sound that is totally different from that produced by consolidation of the lung. It is hard to describe, but it is easily recognized. The sensation of resistance conveyed to the finger by a collection of fluid is extremely characteristic, whether the collection of fluid be large or small.

SECTION ON ORTHOPEDIC SURGERY

January 17, 1896

LE ROY W. HUBBARD, M.D., Chairman

Double Obstetrical Paralysis

Dr. ROYAL WHITMAN: I present this girl, now 10 years of age, to illustrate one of the results that may follow obstetrical paralysis, so called. The infant was delivered by the breech presentation after a labor of 26 hours' duration. As it then appeared to be "dead," the midwife swung it violently by the arms in the attempt to resuscitate it. The mother noticed the immediate helplessness and paralysis of both arms. In three months the left arm recovered almost entirely, but in spite of the treatment applied by many physicians the right remains disabled. Examination shows the right arm to be smaller than its fellow, semi-flexed at the elbow, supinated with hyper-extension at the wrist. There is no power in the shoulder muscles, no power of supination or pronation, and no power to flex the fingers. The hand can be extended, and the arm flexed, by the action of the weak biceps. On the opposite side the movements of pronation and supination are restricted, and the deltoid muscle is much atrophied. There is well-marked restriction of motion at both shoulder-joints. The case is interesting because paralysis of both arms is comparatively rare, and because of the uncertainty that exists as to the final outcome of this form of traumatic paralysis.

Dr. H. W. BERG: The chief point of interest is as to whether this is really a case of brachial paralysis due to traumatism at parturition. It is not a cerebral paralysis; for there is lacking the exalted reflex at the elbow, and certain localized atrophies are also against this view. It is, therefore, either a peripheral paralysis or a spinal-cord paralysis. It is well known that brachial paralysis does not occur in breech presentations, but in difficult head presentations. I am disposed to consider that the cause of the paralysis in this case is rather from the spinal cord, and that it is due either to a hemorrhage into the spinal cord just before the delivery of the head, or else that it is one of those rare cases of early infantile paralysis. I incline rather to the latter view. Again, where the nerves are injured during parturition, there is usually absolute recovery within a few weeks.

Dr. WHITMAN: The fact that the child was well, and that the arms were paralyzed immediately after birth, give strong clinical evidence that the condition

is one of obstetrical paralysis; and it seems to me much stronger than the mere theoretical objections presented by Dr. BERG.

Professor SACHS has examined the patient, and pronounces this an undoubted case of obstetrical paralysis from injury to the brachial plexus—showing no evidence of any lesion of the spinal cord.

Dr. SHAFFER: I have seen several of these cases, and in some of them the electrical reactions obtained were similar to those observed in cases of infantile paralysis. Looking at this child casually, I should be inclined to think that this might be a case of poliomyelitis anterior. The fact that the condition is bilateral also points very strongly to a central origin. It is certainly like poliomyelitis in its effect, although I am not willing, without a critical examination, to say that this patient really has an anterior poliomyelitis.

Dr. JACOB TESCHNER: Cases of poliomyelitis, when they recover, show the greatest recovery in the distal portions of the limbs affected—greater in the fingers than in the arm. This child uses the left hand fairly well; not so the upper arm or shoulder. On the right side there appears to be little or no power in the forearm or hand, but there is slight power in the biceps. This partial recovery of certain muscles in a bilateral paralysis would seem to point to a diseased condition of the anterior horns of the spinal cord rather than to an injury of the brachial plexus. An injury of the brachial plexus lasting for ten years would be apt to show more pathological change—more muscular and nerve degeneration, and more hypertrophic degeneration of the integument than we observe in this case. I once saw a case of rupture of the cords of the brachial plexus due to a fracture of the coracoid process of the scapula caused by direct violence. I had an opportunity of observing this case for over two years after the injury. The picture presented by that case was very different from what we have here.

Dr. W. R. TOWNSEND: In an article written by Dr. LOVETT on "The Surgical Aspect of the Paralysis of the New-born," nine cases are reported. One of these was a breech presentation, and in a case quoted by NADAU both arms were affected. The prognosis this author considers to be much more serious than Dr. BERG would lead us to believe. All of these cases were followed very carefully. I have seen a young girl of fifteen suffering from this condition, and her arm was perfectly useless.

Dr. SHAFFER (for Dr. T. HALSTED MYERS): This patient, J. M., was first seen in 1881, and at that time was 39 years of age. There was a doubtful history of specific disease four or five years previously. In 1889 he fell and struck his head. About 1890 he began to notice a weakness of his arms and a stiffness of his neck. He noticed a lump on the back of his neck. When examined there was some atrophy of the scapular muscles and increased patellar reflex on either side. In June, 1892, there was an increase of the kyphosis of the seventh cervical and first dorsal vertebræ, and a diagnosis of cervical Pott's disease was made. From July, 1885, to May, 1886, he was given electrical treatment and iodide of potassium. On October 24, 1884, Dr. E. C. SEGUIN examined the case, and considered it to be one of chronic myelitis involving chiefly the anterior horns in the cervical enlargement, and did not think there was any vertebral disease because the symptoms indicated a lesion of the fourth or fifth cervical vertebra. In 1894 Dr. M. ALLEN STARR had expressed the same opinion. At the present time there is increased muscular atrophy

and weakness; no permanent leg symptoms, fibrillary tremor, and increased kyphosis. It is evident now that there is feeble pronation and supination; the deltoids are nearly gone, and there is much atrophy. The biceps action of the left arm is nearly gone. There are beginning contractures. When first seen, the apparent kyphosis was below the site of the lesion supposed to exist in the cord. He cannot get along now without a chin-piece or some head-support. The case seems to be of considerable interest in connection with the one just reported by Dr. WHITMAN, on account of the similarity of the gross distribution of the nerve symptoms.

Dr. BERG: This case I saw in Dr. SEGUIN's clinic in 1882. At that time the patient complained of severe lancinating pains in the occipital regions. A careful examination did not show sufficient kyphosis to lead either Dr. SEGUIN or myself to make a diagnosis of Pott's disease. The man was supposed to be suffering from rheumatism. Later on the kyphosis appeared, and a considerable time after this the loss of power developed.

Dr. R. H. SAYRE: I have seen a unilateral case resembling this one. It occurred in a man after falling downstairs. He gradually developed loss of power, and when seen by me some time afterward there was a kyphosis in the cervical region. I was of the opinion that he had fractured the cervical vertebra and partially dislocated it. As soon as his head was supported, this paralysis, which I considered to be due to pressure, began to improve, and eventually disappeared.

Dr. THOMAS H. MANLEY: I think it is very clear that the case presented by Dr. WHITMAN was one of traumatic paralysis. The second case possesses some medico-legal interest on account of the long time which elapsed from the time of the injury to the development of the paralysis. I should think that this condition was probably due to specific disease of the spinal cord.

Treatment of Ununited Intracapsular Fracture of the Femur

Dr. SHAFFER: This young man, twenty-two years of age, came to the New York Orthopedic Dispensary in November, 1894. In May of that year he fell seven feet, striking his hip on a block of wood. At one of the prominent general hospitals he says the diagnosis of dislocation of the hip was made. He was kept in bed for a considerable time. He left the hospital on November 16, 1894, on crutches, and then came to us. I found $1\frac{1}{4}$ in. shortening, a very distinct telescoping of the bone at the seat of fracture, and very distinct crepitation. There was a characteristic attitude of fracture of the neck of the femur, and I had no difficulty in establishing the diagnosis of intracapsular fracture of the neck of the femur. The patient was admitted to Dr. A. J. McCOSH's service in the Presbyterian Hospital, Dr. McCOSH kindly giving me permission to attend the patient. In January 22, 1895, a long traction splint was applied with a "surcingle." The limb was placed in slight abduction by tightening the perineal strap after traction had been made. This treatment was continued up to July 30, 1895, when the patient was able to raise his heel 2 in. from the bed. There was then only $\frac{3}{4}$ in. shortening. He was then allowed up. On September 10, the union seemed to be very firm, and the shortening was still $\frac{3}{4}$ in. On November 7, 1895, the union appeared to be complete, and the hip-splint was removed. On December 17 he left the hospital. He could then bear his entire weight on the limb. I am extremely interested in this class of cases because of the fact that

So long a time elapsed between the time of the injury and the beginning of the treatment for the fracture—eight months in this particular case. I think it would have been safe to remove the apparatus as early as last July, but owing to my absence the treatment was unnecessarily prolonged. The surcingle and pad are used to obtain direct pressure on the head of the bone. Dr. R. A. HIBBS, house surgeon to the Orthopedic, assisted me in directing the treatment.

Dr. R. H. SAYRE: This case presents a very strong argument against the common practice of treating fracture of the neck of the femur by simply placing the patient in bed with only sandbags to restrain the movements of the limb. I think if these fractures were given the same opportunities to unite as other fractures are, there would be fewer cases of non-union. I have had an opportunity of personally treating only one of these fractures occurring in an old person. In this case, good union was secured. Some years ago Dr. RIDLON reported several cases of fracture of the neck of the femur occurring in adults. If I remember correctly, he successfully treated these cases by the application of a Thomas splint.

Dr. MANLEY: A young man of eighteen received an intrafracture of the hip. We were doubtful about the diagnosis of intracapsular fracture because of his youth. He soon developed typhoid fever, which interfered very seriously with the surgical treatment of the injury. He next developed an abscess over the site of the fracture, and an incision into this abscess was made anteriorly. During this operation it was found that the fracture really was intracapsular. The cavity was drained, and eventually solid union was obtained.

Dr. SHAFFER: The especial reason for bringing this patient, and the result obtained, to the notice of the section is to call attention to the fact that intracapsular fracture should be treated immediately after the accident, by means similar to those employed in this instance. When I treated my first case, three months after the accident, by this method, in 1886, I had nothing to guide me; but the successful result obtained in that instance has influenced me to secure coaptation of the distal and proximal fragments, just as I would in simple fracture of the thigh bone, and the results have been extremely satisfactory. If the general surgeons would familiarize themselves with the traction-splint and its uses in acute intracapsular fracture of the neck of the femur, there would be far fewer instances of non-union. Indeed, I believe non-union would be the exception.

The Results of Treatment of Rheumatic Fibrous Ankylosis by *Brisement Forcé*

Dr. W. R. TOWNSEND: There are several varieties of false ankylosis—*e.g.*, muscular, fibrous, etc. It is necessary to ascertain, if possible, whether the ankylosis is extracapsular or intracapsular. Most authorities speak of fibrous ankylosis as synonymous with false ankylosis. YOUNG says that treatment should not be undertaken until the original disease has been overcome. He favors manual reduction except in severe cases, when *brisement forcé* may be employed. BRADFORD and LOVETT say nothing about the fibrous variety except that *brisement forcé* may be employed to reduce the deformity in hip disease. SAYRE publishes many successful cases by *brisement forcé*, but says nothing about his unsuccessful cases. BRODHURST advises forcible extension, with or without tenotomy. With few exceptions *brisement forcé* is highly rec-

ommended, and many successful cases have been reported, but in many instances the fibrous ankylosis has been clearly extracapsular, and only one joint has been affected. From a study of my cases I am not inclined to recommend *brisement forcé* for the cure of fibrous ankylosis when more than one joint is involved, and one must be certain that no active disease exists. The rules laid down by SAYRE should be followed. The forcible correction of the deformity at the knee and other joints has given excellent results. The accidents that may be caused by too much force, or force improperly employed, are often serious; but in only one case is it likely that a fracture was produced. I have included in this paper a detailed account of the clinical histories of eleven cases treated by this method. Out of this number there were nine complete failures, one partial success, and one complete success.

Dr. WHITMAN: I fancy that *brisement forcé* would hardly be recommended, even by an enthusiast, as a treatment for these universal states of rheumatoid arthritis, and I am very glad to hear that in a case in which only one joint was affected the treatment was successful. I have never attempted a repetition of *brisement forcé* when the first operation had been unsuccessful, and I should like to hear of the author's experience on this point.

Dr. R. H. SAYRE: I have had some excellent results from *brisement forcé*, and also some failures. In my father's own case I did an accidental *brisement forcé* upon one shoulder-joint, which had become stiffened. Shortly before this a number of surgeons had seen him with reference to the advisability of performing *brisement forcé* on this joint, and the consensus of opinion had been that owing to his age it was not wise to resort to it. Nevertheless this accident resulted in giving him excellent motion in that shoulder. In one knee systematic massage was employed for several years, with occasional intermissions of several weeks when there was too much reaction from the treatment. I recall a patient with multiple arthritis, in whom a good result was obtained from *brisement forcé* in one wrist and one finger, and one elbow was decidedly improved. The other elbow did well under this treatment for a short time, but then the patient developed a diphtheritic sore throat, which seemed to inflame this joint and several others. Some weeks later I unwisely attempted, before tenderness had completely subsided, *brisement forcé* again, and the result is it that is perfectly stiff now. If I had waited several months I probably could have increased the range of motion. The most unpromising cases for this treatment are those of gonorrheal rheumatism. In my experience, joints that break with a sudden snap usually give a better result than those in which there is a soft, gelatinous feeling at the time of the operation.

Dr. SHAFFER: There are two sides to this question. I have known of case that some of our best surgeons feared to treat in this way, that have been successfully relieved by some quack; and Dr. TOWNSEND's cases demonstrate that we are not always successful. The trouble is to decide as to what cases are suitable for the treatment. Where there has been long-standing intracapsular involvement of the bone, I am inclined to think that the results will almost always be bad. The only way that we can reach satisfactory conclusions is by a better study of the conditions. There are many cases, not only of rheumatoid arthritis, but of fibrous ankylosis, resulting from traumatism and tubercular disease, in which this treatment should be successful. I think Dr. TOWNSEND will admit that some of his cases have

not only been failures, but that they have been actually made worse by the treatment. I have tried prolonged massage and gentle movement, and when there is at the beginning a slight movement I feel that there is a fair prospect of success. Gentle measures often succeed where force would fail.

Dr. BERG: I should like to report a series of five cases of multiple rheumatoid arthritis following scarlet fever, observed in the Riverside and Willard Parker hospitals. In some of these, ankylosis resulted. These patients were all children, and they were treated by flexion, extension, and rotation of the joint in every direction up to the point of tolerance. This would be done every day. Every one of these cases was discharged almost entirely cured. One of the children was under treatment for several months, and was discharged with good result. In private practice I have not seen more than two cases of multiple rheumatoid arthritis following scarlet fever. This is surprising, for I have observed quite a large number of these cases in the hospital. This is probably due to the poor general condition of the children coming to the hospital. Whether these cases are distinctly rheumatoid or not it is hard to say, but they often yield to antirheumatic remedies. The fact that a great many of these cases had cardiac lesions would seem to bear out the opinion that these cases are of a rheumatic nature.

Dr. TOWNSEND: I was induced to write this paper by reading some articles written by Dr. GWYER on the treatment of ankylosis by electricity. Almost without exception the textbooks on surgery recommend *brisement forcé*, and many speak enthusiastically of it. One writer says that he has adopted this treatment in 600 cases without a bad result. But none of these articles makes any distinction between cases in which only one joint is involved and where the affection is polyarticular. The failures from the method are not reported, and I believe it only fair that they should be, and by a study of both classes of cases we may be enabled to determine when we can succeed and when we may expect a failure. In the only successful case in my list the operation was repeated at the end of a month. In the cases which I have seen, the best results have been obtained where there was slight motion to begin with, and also where there was a distant click at the time of the operation; but in these, it is a serious question if any real benefit was produced by *brisement forcé*. Massage, electricity, etc., should be credited with the favorable result. Where a number of joints are affected with firm ankylosis, I feel that we cannot expect a good result.

New Manhattan State Hospital Appointments.

Governor MORTON has nominated the following managers of the New Manhattan State Hospital, which takes the place of the Ward's Island institution for the care of the insane, when those patients are transferred from the county to the State care: HENRY E. HOWLAND, seven years; GEORGE E. DODGE, six years; ELEANOR KINNICUTT, wife of Dr. FRANCIS P. KINNICUTT, five years; JOHN MC-ANERNEY, four years; ISAAC N. SELIGMAN, three years; ALICE PINE, two years; and GEORGE S. BOWDOIN, one year.

Longevity Statistics.—In the town of Alfred, Me., there are 1000 inhabitants. Twenty-four of these are said to be between the ages of 80 and 90 years. In Connecticut there lives a Mrs. S. P., multipara, aged 94, with a personal history of matrimony and inveterate smoking.

BOOK REVIEWS

Pediatrics. The Hygienic and Medical Treatment of Children.—By THOMAS MORGAN ROTCH, M.D., Professor of the Diseases of Children, Harvard University.—Philadelphia: J. B. Lippincott Company, 1896.

Ever since the announcement was made nearly a year ago that this book would soon be issued, all who for any reason were especially interested in pediatrics have looked eagerly for its appearance. The book now before us justifies, in most respects, this expectation.

It is in the first part of the book that Dr. ROTCH gives us his best work; for it is here, as in the divisions dealing with "The Infant at Term" and "Normal Development," that there has been an opportunity to incorporate much that is original in form and substance, with the best results of recent investigation. "Hygiene of the Nursery," although well covered recently by other authors, naturally requires the careful treatment which it receives here, in a comprehensive volume of this kind. It is to the division on feeding, however, to which we turn with the greatest interest, on account of the well-known pioneer work of Dr. ROTCH in this direction, and we are not disappointed, for it contains analytical and clinical material of the highest possible value. The growing interest in dairy sanitation as bearing directly upon infant mortality, and the importance of every physician knowing at least the outline of the methods employed in model dairies, fully warrant the space given to this subject. As much, however, cannot be said of the 30 pages given to the subject of milk laboratories, which are only accessible to persons living in a few of the larger cities. In comparison the 6 pages given to home modification of milk seem very meager. This subject condensed into 6 pages is probably the most important in the entire book. We would further suggest that while a sugar measure of given capacity is shown, there is no word concerning its dimensions, and no indication of where such a time- and expense-saving implement may be purchased.

The premature infant, for the first time in the English language, receives the attention that the exceedingly delicate problem of his care and nutrition deserves.

Division VII, the blood in infancy and childhood, calls for more extended criticism, which must in part be adverse. The first lecture, with a description of the blood in early life, glossary of terms used in hematology, and a colored plate of the different forms of blood-cells, is excellent; but in that dealing with the blood in various pathological conditions there is much to criticise, because it is distinctly misleading. Thus, in the case of lymphatic leucemia pictured upon page 352, there is nothing to support the diagnosis except a ratio of white and red cells of 1 to 50 to 1 to 10. The lad recovered after surgical removal of the mass of glands from the neck. True lymphatic leucemia is not accompanied by such massive enlargement; there is general, not localized, enlargement, and the cases are progressively fatal. Three out of four cases under the heading of *Anæmia Progressiva Perniciosa* are far from conclusive. Here and elsewhere in this section cases are introduced where no satisfactory blood examination was made. Such cases have no value to-day.

Under the heading "The Blood in Individual Diseases" single cases with a blood crust are introduced with each disease. These would be valuable

in the form of a monograph, but in a text-book they are misleading, for they may be mistaken for the invariable type of the blood in the particular disease. Diseases of the nervous system are given full attention and are illustrated by suitable clinical cases. The latter part of the volume, dealing with unclassified diseases, is somewhat too condensed.

Throughout the work there is a lavish profusion of illustrations from photographs, and the majority of them are excellent, although a few fail in the purpose for which they were intended. The propriety of introducing so many photographs of well infants to indicate the complete success of treatment is, we think, questionable. It is not, however, our intention in suggesting these criticisms to detract from the value of the work.

On the whole the book may be looked upon as a collection of excellent monographs, some of which are even better than others, because some subjects are treated only in outline. As a college text-book it is probably chiefly adapted to the students who are fortunate enough to come under the personal instruction of the author; but for the general practitioner, and especially for him who desires further light upon those subjects with which the name of Dr. ROTCH is already permanently identified, it will prove to be an invaluable acquisition.

An American Text-Book of Obstetrics.—For Practitioners and Students. RICHARD E. NORRIS, M.D., Editor; ROBERT L. DICKINSON, M.D., Art Editor. Phila.: W. B. Saunders, publisher. Price, cloth, \$7; sheep, \$8; half Rus., \$9. For sale by subscription only.

This, the latest of this well-known series of text-books, marks a distinct epoch in medical book-making. The association of an art editor in the work is a novel procedure, but one which, judging from the high degrees of perfection attained in this direction, is a precedent that may well be followed hereafter in similar works. Obstetrics is perhaps the one department of medicine concerning which more has been definitely and conclusively settled than any other, and such a work as this will have a permanent value. In a subject, some portions of which it is so hard for the student to grasp from mere printed descriptions, the 900 illustrations—one for nearly every page—show the student, more clearly than many additional paragraphs would do, the conditions which they illustrate. Thus a comparison of the excellent drawings of the male and female pelves at once renders their differences clear. In fact all the illustrations show clearly what they are designed to show, which is by no means always the case in illustrated text-books. In preparing these the best work of other countries has been drawn upon and duly acknowledged,—a courtesy too often neglected,—and much new material has been prepared with infinite care. This is evidenced by the adoption of the entirely new plan of having all the illustrations drawn to scale and the amount of reduction in reproduction stated in each case. This, with a uniformity in the side chosen for the numerous sagittal sections, so that the different plates may be readily compared, is an innovation that at once commends itself to the reader. We note that the diseases of the new-born—a disputed territory which belongs both to obstetrics and pediatrics, and which has been largely slighted by both—is given satisfactory consideration. The pathology of pregnancy is treated at length, and most successfully. The recent investigations concerning the blood during this period is concisely abstracted, and without an excess of tech-

nicality, so that it becomes intelligible to the general reader. We thoroughly approve of the advice to protect the perineum by controlling the expulsion of the head by properly applied pressure rather than by any interference with the perineum itself either externally or through the rectum. Full reference-lists are appended to the many sections of the book, and these are referred to by numbers, thus allowing the reader to follow up any question readily in the original, and doing away with the usual disfiguring footnotes and the too familiar "*loc. cit.*" Altogether this volume is one of the best of the series, eminently adapted to the wants of the practitioner and advanced student, a credit to both editor and publisher, and a notable addition to obstetric literature.

A History of the Chronic Degenerative Diseases of the Central Nervous System.—By THOMAS K. MONRO, M.A., M.D., Fellow of the Faculty of Phys. and Surgs. of Glasgow; Asst. Phys. to the Glasgow Royal Infirmary, and Pathologist to the Victoria Infirmary of Glasgow. 8vo; pp. vi+82.—Glasgow: Alex. Macdougall; 1895.

These essays formed part of a graduation thesis and are now reprinted, with but slight alterations, from the *Glasgow Medical Journal* for 1895. They are historical studies upon those chronic disorders which depend upon primary degenerative changes in the structure of the central nervous system. The diseases treated of are tabes, primary spastic paralysis, ataxic paraplegia, hereditary ataxy, progressive muscular atrophy, bulbar paralysis, ophthalmoplegia, the peroneal type of muscular atrophy, and disseminated sclerosis. The book will prove of interest to any who have studied the diseases of the nervous system, and of value to contributors to neurological literature.

BOOKS RECEIVED

A Pictorial Atlas of Skin Diseases and Syphilitic Affections.—By ERNEST BESNIER, A. FOURNIER, TENNESON, HALLOPEAU, DU CASTEL, HENRI FEULARD, and LÉON JAQUET.—J. J. PRINGLE, Editor. To be published in 12 parts. Part I. Illustrated with photo-lithochromes and explanatory woodcuts. London: F. J. Rebman; Philadelphia: W. B. Saunders; 1895. Paper, \$3.00 per part.

Therapeutics of Infancy and Childhood.—By A. JACOBI, M.D., Clinical Professor of the Diseases of Children, College of Physicians and Surgeons, New York; President of the Association of American Physicians, etc.—Pp. 618. Philadelphia: J. B. Lippincott Company; 1896.

The American Yearbook of Medicine and Surgery, 1896.—Collected and arranged by eminent American specialists and teachers, under the editorial charge of GEORGE M. GOULD, M.D.—In one royal 8vo volume of about 1000 pages, uniform in size with the American Textbook Series. Profusely illustrated. Philadelphia: W. B. Saunders; 1896. For sale by subscription only. Cloth, \$6.50 net; half morocco, \$7.50 net.

American Textbook of Surgery, for Practitioners and Students.—By Charles H. Burnett, M.B., Phineas S. Connor, M.D., Frederick S. Dennis, M.D., William W. Keen, M.D., Charles B. Nancrede, M.D., Roswell Park, M.D., Lewis S. Pilcher, M.D., Nicholas Senn, M.D., Francis J. Shepherd, M.D., Lewis A. Stimson, M.D.,

William Thomson, M.D., J. Collins Warren, M.D., and J. William White, M.D. Edited by William W. Keen, M.D., LL.D., and J. William White, M.D., Ph.D.—Second edition, carefully revised; pp. 1248; illustrated. Philadelphia: W. B. Saunders; 1895. Price: Cloth, \$7.00; sheep, \$8.00; half russia, \$9.00.

The Functional Examination of the Eye.—By John Herbert Claiborne, Jr., M.D., Adjunct Professor of Ophthalmology, N. Y. Polyclinic; Instructor of Ophthalmology in the College of Physicians and Surgeons, N. Y., etc.—Pp. 96, with 21 illustrations. Philadelphia: The Edwards & Docker Co.; 1895. Price: Cloth, \$1.00.

Miskel, a Novel.—By L. M. Phillips, M.D., of Penn Yan, New York.—Advance copy of No. 2 of the Doctors' Story Series, to be issued March 1.—Pp. 266. New York: Bailey & Fairchild Co.; 1896. Price: Paper, 50 cents.

EDITOR'S NOTES

Refuse Dumping near New York.—Among the bills advanced to a third reading at Albany was one by Mr. Finn, prohibiting the dumping of refuse from the seawall of Battery Park. It would be a good idea if this bill could also be made to prohibit the dumping of refuse from the island institutions into the East river.

Nurses Strike.—Because of a change in the location of their dining-room, it is alleged, 11 of the 18 female nurses of the Elizabeth General Hospital went on a "strike." Formerly the nurses had their meals at the training-school, two blocks from the hospital.

In order to save expense, Superintendent SILLMAN fitted up a dining-room in the hospital; to this the nurses objected, alleging that the room was too near the servants' hall, thereby hurting their dignity. Ever since the head nurse resigned, because she was no longer allowed to "pass upon" applicants for the training-school, the superintendent says that the nurses have been discontented and insubordinate. Another instance of the progressive woman. We hope the difficulty will soon be adjusted without lowering the stately dignity of the white apron and French lace cap.

Responsibility of Medical Attendant.—A case recently decided by the New Jersey Court of Errors and Appeals has now laid down the rule that a physician is responsible for his own negligence. A physician, who had agreed to attend a woman in confinement, was absent from town when his services were needed, and in answer to the message sent another physician to act in his stead. Owing to the alleged improper treatment by the second physician, the child died. The physician who had originally been engaged was sued for the other's negligence; but the court held that a physician is not responsible for the negligence of another acting for him, who at the same time followed an independent occupation of his own. This seems to be a unique way to evade paying a fee for medical attendance.

New Brooklyn Health Board Staff.—Dr. Z. TAYLOR EMERY, who has been reappointed Health Commissioner in Brooklyn by Mayor Wurster, has appointed the following as his personal staff: Dr. R. M. WYCKOFF, deputy commissioner; Dr. GEO. E. WEST, secretary and register of vital statistics; FRED.

H. JOHNSON, private secretary; C. J. VOLCKENNING, chief of the bureau of chemistry; FRANK LOCKE, sanitary engineer; Dr. A. S. AMBLER, medical superintendent of the contagious hospital and Dr. EZRA H. WILSON, chief of the bureau of bacteriology.

Excise Revenue for Charity.—Senator BRUSH's bill for the division of the excise moneys in Brooklyn among the charitable institutions, according to the decision of the Board of Estimate, was passed by the Senate this week.

Army Items.—Lieutenant James M. Kennedy, assistant surgeon, was relieved from duty at Camp Merritt, Montana, to take effect upon the expiration of his present leave of absence. He was ordered to Fort Missoula, Montana, for duty.

The leave of absence granted Captain James D. Glennan, assistant surgeon, is extended one month.

Leave of absence for two months, to take effect on or about January 21, 1896, with permission to go beyond sea, was granted Major Curtis E. Munn, surgeon, Benicia Barracks, California.

The appointment of James Sprigg Wilson, to be assistant surgeon, with the rank of first lieutenant, to rank from December 16, 1895, is announced. He is to report in person, without delay, to the president of the Army Medical School for instruction.

Leave of absence for six months, on account of disability, was granted to Major Clarence Ewen, surgeon.

PAMPHLETS.

UROTROPIN (Hexamethylene Tetramine), a Uric-acid Solvent.—By Prof. Dr. Arthur Nicolaier.—Published by Shering & Glatz, 55 Maiden lane, New York.

BETANAPHTOL-BISMUTH.—Published by Shering & Glatz, 55 Maiden lane, New York.

SPECTACLES: Who Shall Prescribe Them?—By W. F. SOUTHARD, M.A., M.D., of San Francisco, Cal., editor *Pacific Medical Journal*.—Reprint from *Occidental Medical Times*, December, 1895.

TREATMENT of Uterine Retrodisplacements by Vaginofixation, with Reports of Cases.—By Frederick Holme Wiggan, M.D., of New York.—Reprint from *New England Medical Monthly*, October, 1895.

FIFTY-FIFTH Annual (1894-95) Report of Colored Home and Hospital, Sixty-fifth street and First avenue.

SUPPLEMENTARY Report on the Success of Electrolysis in the Treatment of Urethral Strictures.—(Read at the Fourth Annual Meeting of the American Electrotherapeutic Association, held at New York, September 25-27, 1894.)—By Robert Newman, M.D., of New York.—Reprint from *Jour. of the Amer. Med. Asso.*, May 25, 1895.

ELECTRICITY in the Treatment of Exophthalmic Goiter.—(Read in the Section on Neurology and Medical Jurisprudence, at the Forty-sixth Annual Meeting of the American Medical Association, at Baltimore, Md., May 7-10, 1895.)—By Robert Newman, M.D., of New York, Consulting Surgeon to Hackensack and Bayonne Hospitals, N. J., and to German Dispensary, West Side, New York.—Reprint from *Jour. of the Amer. Med. Asso.*, December 7, 1895.

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EPIDEMICS OF INFANTILE SPINAL PARALYSIS

IN an interesting paper referred to in the department of Neurology and Psychiatry in the BULLETIN, Dr. C. S. CAVERLY, President of the Vermont State Board of Health, gives the history of the epidemic of acute anterior poliomyelitis that occurred in and around Rutland during the summer of 1894.

The number of cases was large, Dr. CAVERLY having notes of 132. It was impossible to discover any satisfactory cause, either in the patients themselves or in the general hygienic and climatic conditions of the country. Young children were chiefly affected, although one patient, in whom the symptoms were mild and transitory, was 70 years of age. It was, unfortunately, impossible to obtain an autopsy in any of the fatal cases.

While, as is well known, the occurrence of infantile spinal paralysis is almost entirely limited to the summer and autumn months, and is more frequent in some years than in others, but few distinct epidemics have been recorded.

Previous to Dr. CAVERLY's paper, the most extensive one was reported by MEDIN. It occurred in Stockholm from May to September, 1887, and comprised a total of 44 cases.

As in the Vermont epidemic, there were neither discoverable causative factors nor evidences of direct transmission from one person to another. In the Swedish cases, in addition to the ordinary symptoms of acute anterior poliomyelitis of the cord, there were clinical evidences of paralysis of the cranial nerves.

MEDIN also mentions an unpublished account by BERGENHOLZ of a similar outbreak of infantile spinal paralysis.

To these three epidemics may be added a similar outbreak occurring in France, which has been well reported by CORDIER (*Lyon méd.*, LVII, Jan. 1, 1888). In the autumn of 1886, near Lyons, 13 children, of whom 4 died, were attacked with symptoms of acute anterior poliomyelitis. Although search for causative factors was fruitless, CORDIER thought himself justified in believing that the disease was directly communicable. He instanced the case of two children, living some distance from the area where the disease was prevalent, who were seized with typical symptoms in from eight to ten hours after their return from a short visit to the infected region; also that of a healthy child, who was attacked by the disease soon after a short stay in the house of one of the patients.

The only post-mortem examinations that have been made on patients dying during an epidemic were recorded by RISSLER (*Nord. med. Arkiv.*, 1888, XX, 22). RISSLER's contributions are of great value for the establishment of the pathological changes in anterior poliomyelitis.

These epidemics of a disease of which the symptoms, even when occurring sporadically, are indicative of an acute toxemia, lend additional evidence to the now generally accepted view of its infectious origin. And, although bacteriological examinations have hitherto proved negative, it must not be forgotten that they have been made in only an extremely small number of cases.

The microscopical changes in the spinal cords of cases which have died shortly after the appearance of the first symptoms, are such as are found after acute infection. Experimentally, in rabbits, symptoms, chiefly those of atrophic paralysis, have been induced by THOINOT and MASSELINE (*Revue de Médi-*

cine, 1894) by the intravenous injection of the bacterium coli commune and the staphylococcus pyogenes aureus.

That infantile spinal paralysis will eventually be demonstrated to be of bacterial nature is reasonable to believe. In the mean time sufficient evidence has accumulated to indicate its toxic character, and to justify its classification among the acute infectious diseases.

ORIGINAL CONTRIBUTIONS

THE NERVOUS MANIFESTATIONS OF HEREDITARY SYPHILIS IN EARLY LIFE*

By B. SACHS, M.D.

Professor of Mental and Nervous Diseases in the New York Polyclinic, etc.

WITHIN a very recent period cerebral and spinal affections in the adult due to syphilis have been studied so carefully that it is often possible to make the diagnosis of luetic disease without reference to the evidence of an initial infection. The nervous manifestations of specific disease in early life have not been as firmly established; nor are they nearly as frequent as in more advanced years. HENOCHE, ERB, STRUEMPPELL, and others who have studied syphilitic diseases with the greatest care are agreed that specific disease in the brain or spinal cord of children is rare.¹ It is well to note at the start that syphilis, acquired or hereditary, is a very insignificant factor in the causation of a number of the well-known nervous affections of childhood. In the hereditary and family diseases involving the nervous system, such as the progressive dystrophies and hereditary ataxias of the spinal and the cerebellar type, syphilis is the least important factor; and I am also firmly convinced that it is of little moment in the majority of cases of infantile cerebral palsies, though to some of these it may bear a causal relation; but of this later on.

Hereditary syphilis is much more apt to be exhibited by disease of the teeth, of the bones, by an affection of the skin, of the glands, or of the liver, and by a general disturbance of nutrition, than by extensive disease of the nervous system. The last named would seem to be involved either if the hereditary taint is a very strong one, or if there has been a predisposition to nervous or mental diseases in the family of the syphilitic patient. Fortunately, many of those children who are born with a serious syphilitic taint die early, and thus we may account in part for the greater rarity of those manifestations which are due to the graver forms of infection in the parent.

Syphilitic disease in early life can be recognized by the same symptoms that characterize the luetic process in the adult. Whether the disease becomes manifest in the brain or in the spinal cord aside from those symptoms which point to the site of the lesion,

we have others which indicate its specific character. Among the latter we must include the alternations between recoveries and relapses, and the disproportion between the extent of the disease and its intensity. Syphilis of the nervous system is very apt to be a cerebro-spinal affection; it may involve a small area of the brain and of the spinal cord, but in many instances the syphilitic process may affect the cortex of the brain, the interpeduncular space, the medulla oblongata, and the spinal cord throughout its entire length, and yet at one or more of these levels, if not at all, the disease is of such slight intensity that it does not produce the marked symptoms that are associated with other morbid processes. I cannot express this more tersely than by saying that cerebro-spinal syphilis is an *extensive disease of slight intensity*. If we were to examine a child exhibiting a mild form of palsy involving both upper or both lower, or all four, extremities; if this same child presented symptoms of cortical irritation, such as localized spasms in a paralyzed part; if in addition speech were imperfectly developed or had become impaired without being completely lost; if one or more ocular muscles were paralyzed,—this combination of symptoms would point to a multiple cerebro-spinal syphilis.

Among the cerebral affections due to hereditary syphilis we may note the small part it plays in the development of idiocy, epilepsy, and early dementia (BURY²). STRUEMPPELL³ has called attention to the evident relation between hereditary syphilis and general paresis occurring in very young subjects. Careful clinical observations proving the causal relation of hereditary syphilis to the conditions just mentioned are rare enough. Satisfactory autopsies are still rarer. It is probable, however, that vascular diseases, endarteritis (even during the fetal period) may lead to defects in cerebral development, atrophy and sclerosis of the hemispheres with defective development of entire cerebro-spinal tracts. BÄRENSPRUNG⁴ has recorded instances of early and extensive meningeal hemorrhages during the fetal period; but these are of theoretical interest only, as the children are generally born dead. Hydrocephalus is occasionally of specific origin. Specific pachy- and lepto-meningitis has been reported in a few cases. Some authors claim that specific encephalitis (and sclerosis) is a frequent condition; but RECKLINGHAUSEN,⁵ in a series of 1600 autopsies on children, including 45 cases of syphilis, found but two instances of encephalitis.

If we add that gummata in the brains of children have been reported by HENOCHE, WAGNER, and others; that WALDEYER and KOEBNER⁶ have reported a case in which a periostitis interna of the frontal bone had caused a considerable exudate to be formed,—we have recorded the chief morbid changes underlying cerebral syphilis as it occurs in early infancy.

* Judson S. Bury: *Brain*, 1883.

² Struempfe *Neurolog. Centralblatt*, 1888, No. 5.

³ Bärensprung: "*Die hereditäre Syphilis*," 1858.

⁴ See Kohts. Henoch, *Festschrift*, Berlin, 1890, p. 42.

⁵ *Virchow's Arch.*, Bd. LV.

* Read at the meeting of the N. Y. State Medical Society, Albany, January 28, 1896.

Some of the "syphilitic palsies" of children are due to specific osteitis and periostitis, and not to lesions in the nervous system.

But note again that if we take all cases of idiocy or of epilepsy into account, a very small proportion indeed can be attributed directly to a syphilitic taint. Clinically, the evidence of the specific origin of such a condition would depend largely upon the co-existence of other manifestations of hereditary syphilis, such as bone-lesions, gummata of the viscera, etc. A word more relative to specific endarteritis which, since the time of HEUBNER'S studies, has been regarded as the chief anatomical changes underlying cerebral syphilis. HEUBNER himself did not refer to its occurrence in children, but the studies of CHIARI,⁷ and a particularly good report by KOHTS,⁸ prove that it may occur in very young subjects. The latter gives the histories of two children, both about one and a half year of age, who had sustained apoplectic seizures, one at the age of three months, the other at about sixteen months. In the brain of both there was a general sclerosis of the hemispheres (due to early nutritional changes) and a widespread specific endarteritis. The basilar artery of the one child contained a thrombus 13 mm. in length, yet, curiously enough, the clinical symptoms were not those due to the occlusion of this artery.

The paucity of autopsies bearing upon this subject compels us, for the time being, to consider the results of clinical investigations in determining the influence of syphilis upon the cerebral diseases of children. My own studies, and those of PETERSON,⁹ have shown that syphilis is a rare etiological factor. In more than 200 cases of infantile cerebral palsies, in which the cause of the palsy was inquired into most carefully, but two cases could be attributed to hereditary syphilis.

I wish to insist upon this point in contradiction of the statement by ERLÉNMEYER,¹⁰ that congenital syphilis is a frequent factor in the causation of these diseases. There was a history of syphilis in a few cases examined by him, and he inferred hastily from this accidental finding that syphilis was a common cause. But our own experience, which happens to be the most extensive yet recorded, has shown this inference to be entirely wrong. These infantile palsies are, moreover, so easily accounted for by the difficulties during labor, by the influence of the acute infectious diseases of early life, that we need not take refuge in syphilis as a possible etiological factor.

One of the few instances of hereditary syphilitic brain disease resembling an ordinary infantile palsy, which I have had occasion to see, was that of a child now four years of age, which at the age of two, without fever, without convulsions, had gradually developed a paralysis of the right arm, the right leg, the right half of the face, and a ptosis of the left eye. This crossed paralysis—a rare form indeed in children—was, unlike other early apoplectic seizures, gradual, in its onset, and pointed to a thrombosis

in a branch of the posterior cerebral artery supplying the crus, and this thrombosis was unquestionably due to specific endarteritis. The region affected was a different one from that involved in other infantile cerebral palsies, in which the cortex is more apt to be the site of the disease. While I had no hesitation in making the diagnosis of syphilitic hemiplegia in this child, the case is so unique that it proves to be the exception to the rule.

Ocular palsies, which are the most common manifestation in the adult of acquired syphilis, occur every now and then in children, and are in all probability due to syphilitic disease. These ocular palsies may be the only symptom of hereditary syphilis, but are more frequently associated with hemiplegic or paraplegic disturbances due to the same etiological factor. A recent author¹¹ has gone to considerable trouble to collect cases of hereditary syphilis, in which ocular palsies constituted the only symptom, and while there may be some special satisfaction in making such researches, the result is hardly worth the labor involved, for these cases prove nothing more than that the specific process, which is generally a very widespread one, may occasionally be very limited. Ocular palsy, pure and simple, may be a very rare manifestation of hereditary syphilis, but the same palsy in conjunction with spastic paraplegia of the lower extremities is not nearly so rare. It is probable that these paralytic disturbances of the eye muscles in the young are due either to a thickening of the meninges and compression of the root fibers of the third, fourth, or sixth nerve at their point of emergence from the base of the brain or to a specific form of neuritis affecting some, and not all, of the nerve root fibers. It is also probable that the nuclei occasionally undergo primary degeneration, or that they may become diseased in consequence of very slight hemorrhages from specifically diseased blood-vessels. Such ocular palsies of specific origin are amenable to treatment by the usual antisyphilitic remedies; but if these have been of no avail, the disturbance in vision may be corrected by surgical procedures.

Neoplasms of specific origin situated in any part of the brain may give rise to a large variety of symptoms due to the variation in the site of the tumor. Gummata have been observed in various parts of the cortex in the vicinity of the aqueduct of Sylvius, and in the pons and medulla as well as in the spinal cord; but it is well to add that these cases in children are extremely rare. The suspicion of the syphilitic character of the tumor in a child's brain can be corroborated only by the antecedent history, and, to a limited extent, by the effect of mercurial and iodide treatment. I wish to repeat, however, a caution expressed many years ago, that all forms of neoplasm are subject to improvement under this mode of treatment; or, to put it more correctly, the symptoms to which they give rise often subside under antisyphilitic remedies.

⁷ Chiari: *Wiener med. Wochenschr.*, 1887.

⁸ Kohts, loc cit, p. 46.

⁹ Sachs and Peterson: *Journal of Nerv. and Mental Dis.*, May, 1890; see also *N.Y. Med. Journal*, May, 1891.

¹⁰ Erlenmeyer: *Zeitschrift f. kl. Medizin*, vol. XXI, p. 343.

¹¹ Zappert (Vienna), *Archiv. f. Kinderheilkunde*, Bd. XIX, p. 161, 1895.

There are few positive objective signs of brain syphilis which would assist us in differentiating between it and other forms of cerebral disease. Among such symptoms we may include a complete immobility of the pupils, which is more frequently present in syphilis than in any other affection of the central nervous system, and persistent headaches, which are apt to precede the onset of motor or sensory disturbances.

The *spinal* forms of hereditary syphilis lead frequently to the development of a spastic paraplegia which comes on early in life without any special assignable cause, which is subject to recoveries and relapses, and is often associated with cerebral symptoms, such as palsies and a complete immobility of the pupils, all of which point to an extensive cerebro-spinal affection. FRIEDMANN¹² recognizing such cases, has published them under the title of, "Relapsing, Probably Specific, Spastic, Spinal Paralysis." In a case reported by him of a boy five years of age the birth was entirely normal, though the head is said to have been relatively large. Four weeks after birth a skin eruption appeared, which was vesicular at first, ulcerative later on, and terminated in desquamation. The child went through the various phases of mental development in an entirely normal fashion. At the age of three months there was difficulty in moving the arms and legs. Three months later the right arm could be moved, and at the age of one and a quarter years all four extremities appeared to be entirely normal. In the second year, the child having learned to walk well, paralysis again developed in the left arm, and disappeared once more after six weeks. From the second to the fourth year the boy was healthy; in the fourth year he complained of headache, particularly in the occipital region; gradually his gait became weaker and weaker, and he began to drag the left leg, frequently falling in the attempt to walk. There was slight difficulty in micturition, and the legs were rigid. In this case the alternation between recoveries and relapses and the irregular development in the march of the symptoms were brought out in a characteristic fashion.

Similar cases have been described by HOFFMAN¹³ and myself.¹⁴ My own case is that of a girl, aged six years, who was under my observation in 1893. The child had passed through an entirely normal development, but at the age of five years the mother noticed that she began to walk in a peculiarly stiff manner, and that the mental development was somewhat retarded. On examination I found a spastic paraplegic gait; spastic paraplegia of the lower extremities, more marked on the left side; the left upper extremities slightly paretic and rigid; both knee-jerks were exaggerated; triceps and wrist reflexes lively on left side; the pupils were unequal—both reacted imperfectly to light and during accommodation. The syphilitic origin of this trouble was evident from the irregular order of

the symptoms, from the imperfect reaction of the pupils, and also from the fact that the mother at the time of examination presented the symptoms of tabes, and gave the history that three children had died early in life; that she had had two miscarriages, and that at the age of 30 she had a left hemiplegia. A more complete clinical proof of syphilis, both in the child and in the parent, could hardly be demanded.

As for the morbid lesions underlying spinal syphilitic diseases, it is unnecessary to go into detail except to say that we are apt to find specific thickening of the pia over any part of the central nervous system with the formation of gummatous growths; that we may have a specific endarteritis, not only in the blood-vessels of the brain, but, as has been shown more recently by WILLIAMSON¹⁵ and others, also in the blood-vessels of the spinal cord. As a result of this disease in the blood-vessels either definite areas of softening are established or minute hemorrhages occur. If the disease is limited to the spinal cord a specific lepto-meningitis may lead to a diffuse form of myelitis involving a part, though not nearly the whole, of the cross-section of the cord. The more frequent occurrence of spastic rather than flaccid forms of syphilitic spinal paralysis is due, first, to the fact that the region of the lateral columns is invaded by the meningeal infiltration in the majority of cases; and, secondly, the postero-lateral division of the spinal segment has a poorer blood-supply than the ventral half—hence the greater liability to disease in the presence of arterial changes.

If we compare the study of the clinical symptoms of hereditary syphilis of the nervous system with the results of pathological studies we are bound to conclude that the morbid process may give rise to a variety of symptoms, and that the most characteristic feature both of the morbid process and of the clinical symptoms is not the involvement of the brain or of the spinal cord, but that the morbid affection is widespread and yet is of slight intensity¹⁶ at any given level of the central nervous system; also that it is subject to great variations—hence the frequent recoveries and relapses.

A Royal Physician.—Queen AMÉLIE, of Portugal, a daughter of the Comte de Paris, has been graduated in medicine from the leading school in Lisbon. She begins her career by attending to dispensary patients, even as her sisters and brothers do in this country, where one cannot be born to the purple.

Ventro-fixation of the Uterus.—Dr. CHAS. P. NOBLE, of Philadelphia, writes us requesting information in reference to the possible untoward effect of this operation on pregnancy and labor. Any of our readers who may have witnessed labor following suspension of the uterus by the abdominal route will confer a favor on Dr. NOBLE and assist in determining the status of this operation by sending a report to him.

¹² J. Hoffman: *Neurologisches Centralblatt*, July 1, 1894.

¹⁴ Sachs: "The Nervous Diseases of Children," 1895, p. 337.

¹⁵ Williamson: On the Relation of Diseases of the Spinal Cord to the Distribution and Lesions of the Spinal Blood-vessels, H. K. Lewis, London, 1895.

¹⁶ Detailed evidence of this will be found in previous writings of the author. See *N. Y. Med. Journal*, Sept. 19, 1891, and *Brain*, vol. XVI 1893.

¹³ Friedmann, *Zeitschr. f. Nervenheilkunde*, Bd. III, p. 182.

HOW TO PREVENT RIVER AND STREAM POLLUTION*

By THOMAS E. SATTERTHWAITE, M.D.

THE problem of how we can put a stop to the increasing pollution of our rivers and streams is properly attracting a great deal of attention for reasons that are quite apparent. We cannot drink filthy water; it is not fit even for household purposes; in fact, its mere presence is a constant menace to anything that has flesh and blood.

Now as it is dangerous to health and offensive to our senses, constituting a public nuisance, it follows that medical men should be among the foremost to plan measures for abating it, so far as is practicable; and the public has a right to expect such action of us, because we largely control the operations of our local and State boards of health.

Now, as I have been unable to find any simple statement of the *data* essential for the solution of this problem, I propose in this brief paper to present them as seen by myself at the present time. Facts we have in abundance, it is true; but they are mostly scattered through our State reports, journals, or pamphlets; while much that is found in manuals on the subject is ill digested or possibly written in the interest of some special system.

At the outset, however, I must ask you to go back a little, so that by viewing the situation from a distance we may get the proper perspective. In this way it will be possible for us to observe some of the milestones in the sanitary progress of the last half-century. We shall also note that England has been the leader in modern sanitary science. But necessity compelled her. London with its enormous population (in 1894 it was four and a half millions) is traversed in serpentine manner by a small and comparatively shallow river, which receives the waste from houses and works of all kinds. It is easy to see, therefore, that river pollution was early brought to her attention.

Indeed, in 1848 Parliament permitted the discharge of waste into English rivers and streams; for, in many of the densely settled English towns, there were no sewerage systems, and an immense amount of soil saturation had taken place. Now, this public-health bill of 1848, which permitted the discharge of crude sewage and waste into rivers and streams, relieved the contaminated soil of its accumulating filth in a measure; but the rivers and streams became fouler than ever. In 1854, however, England was visited by its third great cholera epidemic, and it was noticed that there was some connection between this disease and polluted drinking-water. There was then in Broad street, London, an old pump, and it was seen that cholera had a special preference for persons who drank this particular pump-water. Of course they failed to recognize, as we do now, that the disease is almost wholly contracted from drinking-water that has been fouled by the *dejecta* of cholera patients.

And yet, nothing further of importance was at-

tempted in the way of legislation until 1876. Then the Rivers Pollution bill was passed by Parliament. Its object was to annul the dangerous features of the bill of 1848; but it failed to give substantial relief, because its provisions were permissive, not mandatory. Persons violating this act by polluting streams rendered themselves liable for legal proceedings by individuals; but individuals usually did not care for a contest with powerful corporations, which were the chief offenders. It was 12 years before the initiation of legal proceedings became compulsory and the state was made the prosecutor. By the act of 1888 each county was compelled to take action, whenever a violation occurred within the limits of the county; while the Local Government Board, a higher authority, was directed to act whenever the violation involved contiguous counties, and therefore threatened a war of interests. But even this fact proved inoperative in some respects.

Prior to the passage of the bill in 1888, there had been formed, under the leadership of two well-known sanitary engineers, Sir Joseph Bazalgette and Mr. Baldwin Latham, a commission, called the Lower Thames Valley Main Sewage Board. The object of this commission was to get all the towns north of the Thames between Windsor and London, to unite in a comprehensive sewerage scheme. Several futile efforts were made by these engineers to get the several communities to unite. Finally, in 1884, a last effort was made; but Parliament in the end vetoed the measure, because it called for gigantic disposal works near London, and it was thought improper to treat such a vast mass of sewage at the point named by the engineers. Besides, it was found that each community preferred to manage its own sewerage system, as it did its water-supply and street-lighting plant. So after costly litigation the whole project was abandoned. About this time similar attempts were made at co-operative trunk-sewer schemes, but so far as I know they failed; and at the present time, just as the Thames Valley towns successfully opposed the Thames Valley intercepting sewer project, so the Passaic Valley towns in New Jersey and the Bronx Valley towns in New York are opposing the conjoined and co-operative intercepting sewerage schemes that have been projected for these valleys. There are many and well-founded objections to these co-operative sewers where they assume large proportions. Where, however, small communities or scattered rural settlements unite with their neighbors, there may be manifest advantage, both on the score of economy and satisfactory results.

Let me stop here to consider some of the most necessary *data* in our problem. And to begin with, let me remind you that the waters of our rivers and streams have a *threefold* source. First, they are derived from springs, then from subsoil water, and lastly from the liquid of various sorts of waste, discharged into the running water, after more or less artificial or natural purification. For we know that there is always a tendency for running water to

* Read by title before the New York State Medical Society, January 30, 1896.

purify itself. Some sorts of animal waste will be eaten by fish, and at any rate minute animal or vegetable *débris* suspended in water will be eaten by microscopic organisms, while the oxygen of the air and of the water will further assist in the work of purification. And yet there is a limit to the capacity of a stream to purify itself; and these methods of nature will be ineffectual if sewage is not sufficiently diluted, or there is lack of oxygen from any cause.

Now the sources of water-pollution are also *three-fold*. At this point I beg to say that sewage is different from manufacturers' waste—a difference that is not always appreciated in this country. They generally differ widely in chemical characteristics; in their effects on our health; and in respect to the methods necessary to make them inoffensive.

Sewage is a complex material, composed of human excrement, urine, kitchen slops, the outflow from laundries, and the drainage from barns, stables, and slaughter-houses. Sewage, taken as a whole, has an alkaline reaction; and this point is important to recognize. On the other hand, *manufacturers' waste* is such a liquid as may flow away from print works, bleacheries, tanneries, woolen-mills, gas-works, etc.; and when taken as a whole it is usually acid, because the by-products of these works are usually acid.

The third source of pollution in running water is *surface-washings*. Occasionally they are very offensive, as in large cities or towns, especially in dry weather. In New York, for example, the solid portions of the surface flow are largely composed of horse-manure with other animal or vegetable refuse to a less degree; but in most rural communities, surface washings are a minor source of the pollution of rivers and streams. For these solid matters form but a small part of the total flow, and are then so much intermixed with soil that they are fairly disinfected. The chief harm of surface and storm waters is economic. They tend to fill up the beds of rivers and streams, so that mechanical means have often to be employed to remove the deposits; but ordinarily they are entirely carried away in times of storm and freshets.

Now, when a sewerage scheme undertakes to collect the surface water, in addition to sewage and waste, the method is known as the *combined*. Drains that would ordinarily empty into streams or brooks are by this system turned into the sewers, which naturally should be capacious enough to carry off the maximum of flow from all the three sources named,—even in times of storm or flood,—if they are to fulfill the tasks allotted to them. This is the method employed in large cities like New York.

But there is a growing tendency to look with disfavor on the combined system in most localities, and I will enumerate some of its disadvantages. There is no way of determining what the maximum flow is going to be, and therefore the proper size for the mains in such a system is pure guesswork.

It is, by necessity, more expensive than the *separate* system on account of its great capacity, and, being so capacious, the current is apt to be slow, and therefore is likely to admit of sedimentation, and its associated condition, the development of sewer-gas in more or less quantity. Then, if disposal works are found necessary at the outlet, the expense of treating each gallon of flow will be enormous in time of storm and flood, when the flow will be anywhere from twenty-five to a hundred and more times greater than in dry weather. In fact, it is readily conceivable that the amount of waste may at such times be so great that disposal works cannot handle it; and yet disposal works are very sure in the near future to be regarded as indispensable to every large sewerage system where filtration is not used. Finally, combined systems call for a large amount of brick in their construction, and it is a fact of common knowledge that brick sewers are apt to leak and require extensive and expensive repairs.

It is not within the prescribed limits of this paper to allude to the pollution of running water, by privies, cesspools, house-drains, etc. These accidents are so easily prevented by any ordinarily efficient board of health that a discussion of them here is unnecessary.

What chiefly concerns us, as a profession, at the present moment, is the pollution of our rivers and streams by domestic sewage and manufacturers' waste, as they are diluted by the running water in our sewerage systems.

Now, there are three principal methods for the disposal of waste by the water-carriage system. First, we have the discharge of *crude sewage* into the stream. Unfortunately, it is too common a method, though applicable enough in exceptional cases. For example, in New York and Brooklyn it works fairly well, on the whole, so long as the mouths of the sewers discharge directly into deep water, with a rapid current. After a greater or less time, this waste finds its way to the sea. It is carried down to the North and East rivers by gravity, and the salt water of the rivers disinfects it. But there are some grave objections to it now in some parts of these cities. There is not always gravity enough to carry the waste swiftly to the salt water, and much of it may be detained in the mouths of the sewers by tides and winds. And in any case, if the current at the outlet is sluggish, the waste will be precipitated by the salt water and make a foul deposit on the bottom near the sewer mouths. Besides, much of that which escapes oscillates back and forth with the rising and falling tides. This condition of things was made the subject of a special investigation by the New York Board of Health at Flatbush in 1893, and on September 14 of that year it recommended Governor Flower to require the Sewer Commissioners of Flatbush to prepare plans for disposal works, and also recommended that where other outlets discharged under similar conditions some method should be adopted for the treatment of the waste.

But even if such sewers discharge directly from the heads of piers, which is rare, or into a rapid current, there will not only be precipitation in the salt water, but contiguous shores will receive more or less of deposit or refuse, and there will be a constantly increasing quantity of it.

Already the citizens of Coney Island, Gravesend, and Sheepshead Bay are complaining of the garbage and refuse that are now piled up on their shores, and New Jersey people are complaining of the nuisances from Sandy Hook down the beach for many miles. In fact, it is only a question of time when the State Board of Health will be called upon to introduce legislation to prohibit the discharge into our rivers and streams of all kinds of liquid waste and refuse.

It may be proper enough to discharge these substances into torrents like the Niagara river, as is now done; but it is a direct menace to our health to discharge them into the small and sluggish streams of thickly settled communities.

The story of the typhoid epidemic of 1890 in the Mohawk Valley illustrates and emphasizes this latter statement.

The Mohawk river prior to 1890 had been receiving the sewage of nearly every large town on its banks—Rome, Utica, Schenectady, and others having complete sewerage systems which discharged crude sewage directly into the river.

In July, 1890, Schenectady had 300 cases of typhoid, with 20 deaths. In the October following, Cohoes, lower down the river, had an epidemic of typhoid, with 1000 cases, though of mild character. In West Troy, which is on the Hudson, below the mouth of the Mohawk, the epidemic began in November. A hundred cases were reported. In December the epidemic had reached Albany, having traveled down the Mohawk and Hudson rivers, 26 miles in all. The total number of typhoid cases was 1800. All of these cities used drinking-water polluted with sewage, and although in West Troy and Albany there were other sources of drinking-water than the Mohawk, all but 26 of the typhoid cases had drunk the sewage water. Here there is an example of the disastrous effects of turning crude sewage into a river that is subsequently used for drinking purposes.

Any trunk sewer or large sewer that carries household waste a long distance without its being disinfected is necessarily more or less of a menace. Such sewers should be ventilated at stated intervals—say every 1000 feet; and yet through these ventilators foul gases can escape, possibly laden with typhoid germs. LIEBERMEISTER, in his famous article on typhoid fever, published in ZIEMSEN'S Cyclopaedia (vol. i, p. 56), quotes the case of a German girl, who, after contracting typhoid fever, returned to her native village for treatment. Her *dejecta* were thrown on a dunghill. Several weeks later five persons were employed to remove some of the dung. Four of them took typhoid. Nine months later two men were employed to complete the removal of the dung. One of them took typhoid and died of it.

And there is the expert medical report on the recent typhoid epidemic at Woking in England, recorded in a recent number of the London *Lancet*. Mr. LUKE, the medical officer, after an elaborate examination, came to the conclusion that the origin of the disease was almost wholly to be laid to *sewer effluvia*. Now these occurrences point to the fact that the exhalations from typhoid *dejecta* can produce the disease.

Then, sewage must flow at the rate of five miles per hour to prevent sedimentation, and if it cannot get this speed by gravity it must be helped along by pumping.

Finally, any large sewer designed to carry waste a long distance will be expensive to construct and perhaps expensive to maintain. It is generally believed to be the most costly and least desirable of the three methods. It has been computed that the great Bronx Valley sewer, if ever it is built, will cost \$3,617,310, or over \$170,000 a mile; this is on the *separate* system, and is only a *provisional* estimate. It is safe to say that these figures do not represent its real cost. I have in mind the original estimate made by an engineer for a sewerage system which is now being constructed. The actual cost to date is more than threetimes the original estimate; but the original plans have not been carried out in detail, and the work is far from complete. If the present Bronx Valley scheme is carried out, it will in my opinion be the most expensive, most offensive, and most unsatisfactory of the modern methods for sewage disposal.

But both this and the Passaic Valley scheme come under the head of what may be called *personal* legislation as distinguished from *sanitary* legislation. I have not learned that any reputable medical sanitarian indorses either one of them.

The second method of sewage disposal is by *filtration*, the object of which is to purify sewage by passing it through porous soil, sand, gravel, coke, etc. Under this heading come *broad irrigation* and all the methods pursued on *sewage farms*.

Filtration methods have been quite popular of late in some of the principal European cities. ALBERT SHAW, in his "Municipal Government in Continental Europe," 1895, describes how Paris follows the filtration plan at Gennevilliers, near the city limits, where there is a sewage farm on a plain in a bend of the river Seine. In 1892 there were about 2000 acres under irrigation at Gennevilliers and 30,000,000 cubic meters of sewage were treated annually, and the effluent water that percolated through the soil of this farm on its way to the Seine was purer (biologically speaking) than the famous Vannes water. While this effluent contained only about one dozen microbes to the cubic centimeter, the Vannes water contained about 62; in fact, we have the statement from GEORGE E. WARING, Jr., that he drank the effluent when visiting the farm. It is also said that this farm is successful from an economic point of view; that the crops have quadrupled on the farm, and that the population has doubled within

10 years. It is safe, however, to be a little cautious about accepting French statistics of this character. As a matter of fact, typhoid fever has been very prevalent in Paris for some years past.

Berlin, however, has the same plan. This city being situated on a plain, the sewage has to be pumped to its ultimate destinations, which are sewage farms, distant as much as 15 to 20 miles. There are several of these farms round about Berlin. Together they embrace a territory of more than thirty square miles, or, as the city embraces only 25 square miles, the farms occupy a larger area than the city itself. The whole system, including the cost of the land and cost of the sewers, will make the expense about \$30,000,000. The population of Berlin in 1892 was about 1,500,000, so that its total debt will reach about \$20 per head. But it is claimed that the profits from the farms are so great that within a reasonable time they will have earned enough to pay for the whole investment, and will then aid materially in reducing the municipal taxes.

In Hamburg, Germany, a modification of the filtration plan was applied to the waters of the river Elbe in 1893; and whereas, it is said, myriads of cholera germs remained over from the cholera epidemic of 1892, they were entirely removed by filtration. Most of the principal German towns, such as Breslau, Dantzic, and Brunswick, have adopted some kind of filtration for sewage.

This method has also been very popular under the administration of the present Massachusetts Board of Health. Their report for 1895 shows that they usually recommend the irrigation method of filtration, the sewage being spread over filter-beds near the stream into which the effluent is to pass, and from 6 to 8 ft. above the river at high-water mark. Communities are recommended by them to have about one acre of filter-beds to every 1000 or 1500 inhabitants, for present uses, and additional land to provide for the growth of the population. For example, Framingham, Mass., with a population of 10,000 in 1890, has about 12 acres of filter-beds in use; Marlborough, with a population of about 14,000, has also 12 acres in use. But reports from these sewage farms are not always satisfactory. Pullman, Ill., that model community, has not found irrigation a success; and East Orange has abandoned her farm. Some of the chief objections are these: Filtration in sewage farms, at least, does not appear to destroy all germs, as shown by the results at Gennevilliers. The process is slow, requires a great deal of space, and may be interfered with in winter by ice and snow, though on this latter point there is a conflict of opinion. Manufacturers' waste must be excluded; such material as gas-tar from the gas-works will either stop the process or ruin the crops. Careful supervision is required to prevent odors. Eventually the soil must become saturated, and portions of the farm will have to be abandoned—temporarily, at least. And so such filtration methods

may in the end prove costly failures, and yet they may be applicable in certain cases, as the experiments at Berlin and Paris show. The original cost is apt to be very large. Birmingham, England, which in 1891 had a population of 429,171, has a new sewage farm that has cost her \$2,000,000, and it costs her \$275,000 a year to run it, though this expense is offset by the profits from the farm, which are annually \$125,000. My personal experience has been that it is an almost intolerable nuisance to have crude, untreated sewage spread over farming land. The stench is horrible. But it appears that you can treat sewage and waste so as to destroy all disease germs, converting these offensive substances into a germless, inoffensive residue, or *sludge*, as it is called, and a sterile liquid or effluent that can be discharged into a stream without polluting it.

And this brings us to the last method, which is *precipitation*. It is not my intention to enumerate the various chemicals and other reagents that are used in chemical and mechanical precipitation, nor the various processes. They are too numerous to mention. If I allude to a few of them, their plan of action will be sufficiently clear. The most common precipitants are lime, iron, clay, copperas, sulphuric acid, and alum. The particular process or the combination of processes will vary with the physical properties of the waste, the needs of the community, the facilities at hand, and the cheapness of the reagents in the locality. In these matters, every locality must be a law unto itself. Personally speaking, I have had some familiarity with the *Amines method*, devised by Mr. WOLLHEIM, a New Yorker by birth. It has been used in several English towns. At Wimbledon, England, I have several times visited the works and seen them in operation. The process consists in collecting the sewage and waste in a series of tanks, treating them in the sewer mouths as they enter the tanks with lime and herring-brine. They use unslacked lime, and the brine is derived from the scourings of herring-barrels, which they have facilities for buying at a very low price. The process is therefore simple and cheap. The cost has been from one to one and a half cents per 1000 gallons of sewage. The lime and salt-water throw down the sewage so as to form sludge, while the effluent flows off into a small stream discharging into the river Thames. Prof. KLEIN, the biologist of the works, has reported that this process destroys *all* germs, and his tests were the most rigid known to medical men at the time they were made. Besides, this process is perfectly inoffensive. Neither sludge nor effluent is alterable by heat or exposure to the air, and what is known as *secondary decomposition* cannot occur. The sludge has been used for farming purposes, though I doubt if it has been found to have much market value. Then there is the popular A, B, C process, in which clay and alum are mixed with magnesia, salt, blood, and animal charcoal. The sludge is said to sell at a high price for farming purposes—\$17.50 per ton.

The Amines process would be suited for sewage

and manufacturers' waste where the latter preponderates. On the other hand, there are acid processes that would be better adapted for sewage proper. Sulphate of iron and the magnetic oxide of iron are the chief characteristics of these processes, though often used together with lime, alum, magnesia, etc. The salts of iron disinfect, while alum and magnesia decolorize and precipitate. The magnetic oxide is also used as a filter. At some date in the future it is reasonable to suppose that the electric current will be used. It acts by liberating chlorine gas and oxygen in intensely active states at the positive poles, and they reduce the sewage to harmless solids and liquids. The cost of precipitation is usually quite small, comparatively speaking, and the newer reagents are generally cheaper than the older ones. By this method, also, there is a broad field opening before the chemist, as chemical reagents furnish in themselves the agencies by which sewage is sterilized. May not chemists find ingredients in the manufacturers' waste that can replace the chemicals which are now purchased at some cost for the work of purification? And may we not expect to find both in sludge and effluent substances that can be recovered and made again of practical use?

The city of Frankfort, in Germany, disposes of its sewage by precipitation and mechanical means, and then discharges the effluent into the river. The sludge is sold as a fertilizer. In Manchester, England, they also resort to precipitation. The works were begun in 1891; but the simplest of these methods appears to be that of the Scotch Disposal Works at Glasgow,* and put in operation in 1894. Previous to this date they had discharged a vast amount of sewage and waste into the river Clyde, which had come to be a gigantic sewer and in summer-time gave forth a horrible stench, as I can testify. In 1894, at a cost of \$500,000, they built these works, occupying 30 acres of ground. The sewage is treated immediately it reaches the works with milk of lime and sulphate of alumina. Precipitation takes place rapidly, and then the supernatant fluid is aerated by exposure to the air in thin sheets. While the precipitate is still wet it is dropped out of the bottoms of the settling-tanks, and, being caught in receivers, is immediately "rammed" by sludge presses into blocks, which are next dropped into freight cars waiting underneath to receive them.

The sludge is then taken to the municipal farm, where it is applied to the ground, and raises fodder for municipal cattle. The comparatively clear effluent is now passed through a coke filter, and whenever the filter gets too filthy the coke is put in the furnace of the power-house and is consumed. Finally, the effluent is passed through a sand and gravel filter, and so it reaches the Clyde in an almost perfectly clear condition.

This method has several important advantages over filtration. It requires comparatively small

space, and need not be any nuisance, even if operated in a crowded residential quarter.

It is, in my opinion, more certain to destroy all the disease germs than any filtration plan that is in use.

The principles involved in the precipitation of sewage are as follows: Sewage should be collected and precipitated *when fresh*, before it can undergo material fermentation. Precipitation consists in producing an artificial coagulation of the sewage, which carries down with it all solid matter, and therefore vegetable germs. Then the supernatant liquid must be oxygenated either by exposure to the air, to water, or to some powerful oxydizing influence—such, for example, as electricity; and oxygen can be made to destroy any remaining organic life, if such be present. As a rule the effluent should not be turned into any running stream until its bulk is at least twenty times that of the effluent, and the chemical qualities of the water should be such as not to precipitate the effluent; so that whenever a town can reach a stream whose volume is at least twenty times that of the effluent, the problem is solved except as to details.

From all that has been said, it appears that the choice of methods lies between filtration and precipitation; while the discharge of crude sewage is a plan that is gradually being abandoned, and is only applicable in very exceptional instances. The choice between filtration and precipitation will be made in the light of the advantages and disadvantages that have been named. Where, as in the case of Berlin and Paris, a city has a large amount of spare land that can be reclaimed by sewage treatment or made a source of revenue, the conditions are favorable for filtration. When there is no available spare or waste land, and the population is dense both in and about a city or town, precipitation appears advisable. Looking at the question from the point of view of economy and from the figures in the English reports, which are most elaborate, precipitation appears to be the cheapest, and at the same time its future has the widest possibilities. Occasionally the reports make it the most expensive plan. Certainly it might easily be so if used in connection with the combined system of sewage. To be considered in estimating the cost of a system are: (1) The amount of interest to be paid on the loan for constructing the original plant; (2) the annual operating expenses; (3) the annual cost of maintenance and repairs; (4) any profit that may accrue. But, as I have said, such provisional estimates must be very carefully considered, for they are apt to be misleading. Communities in this country intending to construct any of these systems cannot be too strongly recommended to give the matter their most thoughtful attention, and with special reference to the requirements of their particular locality.

Fortunately there is a growing tendency nowadays to throw the chief burden of the committee, commission, or board appointed for this purpose on the medical profession. And this is eminently wise.

* Glasgow had in 1891 a population of 565,714.

Medical men are, by their education, training, and experience, well equipped for this work; are usually willing to serve for a fair remuneration; and are disposed to rise above the level of partisan politics, and aim to secure efficiency and economy in public schemes of this kind. But other elements are necessary. There are questions that need the common-sense and experience of the practical man of business, who has been successful in his enterprises, while, finally, legal training is important in removing some of the difficulties that are sure to come to the front. Corporations are quite apt to demand more than their rights, and the rights of individuals may be trampled on. Corporations have rights, however, that must be respected, but at the same time the rights of the individual must be maintained. But the three personal elements named should be in control in these matters, whether on commissions or local or State boards of health. Engineers, chemists, and biologists and other specialists have their necessary places, but they are subordinate ones, and their functions should be advisory. A study of our recent progress in sanitary science will demonstrate that along these lines the most satisfactory progress has been made—while neglect of them has often led to disastrous results.

New York; 531 Fifth avenue.

WHEN AND HOW TO DRAIN AFTER ABDOMINAL SECTION*

By EGBERT H. GRANDIN, M.D.

THE object of drainage may be broadly stated as being to carry from the body materials which, if retained, might be absorbed into the system to its injury. The principles underlying surgical drainage are exactly similar to those which govern natural drainage. Under natural conditions, unless there be force employed, fluids will not flow uphill, but, under the force of gravity, must ever seek a lower level. Under the same conditions an outlet of sufficient dimensions must exist, or else the effete material will become stagnant or seek a lower level by process of burrowing. Where a cesspool, for example, has no outlet, if the character of the surrounding soil permit, the contents will gradually permeate this soil so far as the fluid contents are concerned, the solid being left behind as stagnant, putrescent material. Burrowing must, therefore, be guarded against, or else the surroundings of the cesspool are converted into other cesspools. Further, under natural conditions, if the direction in which drainage occurs be obstructed at one or another point, stagnation will again ensue and be followed by similar burrowing. Now, analogically, when the surgeon seeks to drain a portion of the human body, he must bear the fact in mind that the fluids and the solids he does not desire should gain entrance into the system must be persuaded to flow downward; and, further, that the means he resorts to for favoring drainage must be such as will not defeat his aim by becoming obstructed. Finally, and most important

of all, he must remember the condition and the character of the soil, so to speak, which he seeks or is forced to drain. For instance, there is a vast difference between drainage of a cavity on the arm, the leg, or in the mammary gland and drainage of a lymph-sac, such as the peritoneal cavity is.

The characteristics of this great lymph space, the peritoneal cavity, are its great absorptive powers—powers which are often intensified when disease exists; its proneness to throw out plastic lymph which simply shuts off the space we endeavor to drain from the peritoneal cavity in general; and, finally, the fact that the intestines which are contained in this lymph space and which are surrounded by its meshes offer nature's route of drainage. At a glance, then, it is apparent that, while the principles underlying the act of drainage are the same, the method by which it should be secured must differ and that the limitations of drainage of the peritoneal cavity are narrow. Broadly it may be stated that it is an impossibility to drain the peritoneal cavity after similar methods which hold for other regions of the body. In the short space of, say, twenty-four hours, the agent employed to facilitate drainage of the peritoneal cavity becomes walled in by the plastic lymph which is thrown around it, and drainage beyond the immediate surroundings ceases. The very presence of the agent used to drain by, causes the deposition of this plastic lymph, so that beyond the wall of plastic lymph there is no drainage, and within the wall stagnation may occur and subsequent burrowing.

In view of the natural difficulties surrounding drainage of the peritoneal cavity it is very fortunate that, in the light of present knowledge, drainage properly so called is rarely demanded.

What conditions call for drainage after abdominal section?

At the outset let it be remembered that no amount of, or attempt at, drainage will remedy the consequences of faulty technique. The abdominal surgeon who from carelessness, whether of himself or assistants, infects the field of operation cannot hope through drainage to remedy the harm done. Further, the old idea that through drainage we could secure information in reference to the occurrence of hemorrhage has been exploded. True enough the drainage tube, if inserted, will tell us, for a relatively short time after operation, whether blood is flowing to the most dependent part of the cavity—always provided the farther end of the tube do not become blocked by lymph or detritus or clot; but, bearing in mind the fact that very soon after an operation the plastic lymph is thrown out around the tube, hemorrhage may continue, and yet there may be no evidence from the side of the tube. As an index, of existing hemorrhage, therefore, the day has gone when drainage may be employed. We thus see that the field of drainage after abdominal section is an exceedingly limited one. It is limited, not alone because of the impossibility of drainage of the cavity *per se*, but also because, under ordinary conditions,

* Read before the Harvard Medical Society, January 25, 1896.

drainage by the most important route—through the intestinal canal, renders unnecessary resort to extraneous methods.

Guided by these principles, where an abdominal operation is performed for a condition unassociated with the presence of a material, such as pus, which may *per se* constitute a source of fresh infection of the system, drainage is uncalled for. As we have noted above, if, during the course of the operation, fault in technique has resulted in the introduction into the peritoneal cavity of germs or of germ-bearing or -producing material, no amount of or attempt at drainage is of avail. Where, however, an abdominal operation is performed in the presence of a condition which has already soiled the peritoneal cavity, or where, during the course of an operation, material of a nature of an irritant to the cavity is unavoidably introduced, then attempts must be made to remove or to assist in removing this *materies morbi*. Thus, if the operation is performed in the presence of a septic peritonitis, or if, during the extirpation of a pus-containing sac—especially if ovarian—the peritoneal cavity become infected, then, since after the completion of the operation the material necessarily left behind must find an outlet or else become absorbed, drainage is called for. Again, if the operation has resulted in opening into a pus-containing cavity walled off from the general peritoneal cavity, we must drain in order to avoid stagnation of the infectious waste-products, which will in the course of a day or so be thrown off, as also in order to prevent burrowing. Such are the reasons which cause the general surgeon to drain a mammary abscess or gluteal abscess, for example; and on similar grounds the abdominal surgeon drains an abscess of appendicular origin or an encapsulated intraperitoneal collection of pus. The scope of my remarks will not allow me to specify separate conditions calling for drainage; nor is it necessary, since these are self suggestive. It is the broad principle underlying drainage after abdominal work which I seek to lay stress upon, and, what is still of greater importance, the method after which we can secure drainage.

Derivation or drainage through the intestinal canal is unquestionably the most important of all methods. We thus not only suck from the peritoneal cavity fluids which have been left there as the result of the operative technique, but we also drain off the serum, which traumatism has caused to exude. Further still, by means of the peristaltic action of the intestines, which follows on gentle catharsis, we prevent the intestines becoming welded together with pockets in between where otherwise encapsulated fluid and solid material would remain to the immediate or the ultimate damage of the patient. Again, gentle catharsis, by maintaining the liver in action, keeps the intestinal canal filled with nature's great antiseptic, the bile. It seems to me that the cases where in particular it is advisable to secure drainage by the intestinal canal are those where, during an abdominal operation, it has been necessary to separate many adhesions, and cases where, either before

the operation or during its steps, the peritoneal cavity has become infected. In the first class of cases, by keeping up gentle peristalsis, we limit the extent to which the intestines may become adherent at the sites of traumatism; and in the second class of cases we most assuredly carry off through the intestinal canal material which otherwise might be absorbed into the system, to the injury of the patient. It must be remembered strictly, however, that usually gentle catharsis is the aim, and that resort to the very active measures which characterize certain operators is to be deprecated. Indeed, I question if often the haste with which laxatives are administered in large doses does not defeat the end in view, and paralyze peristalsis instead of favoring it.

Another route of drainage, and one too often forgotten, is offered by the kidneys. The very important effect of renal insufficiency after operation is gradually acquiring recognition, and rightly so, since unquestionably the scale too frequently turns against our patient because of inattention to these organs. Next to the intestinal canal I question if we possess a more active derivative—drainage route—than through the kidneys. The manner after which these organs are to be kept active is by the administration of large quantities of hot water by the mouth and by the rectum after operation. A point to be dwelt upon in this connection, and also applicable to the drainage route by the intestines, is the avoidance of opium, which drug not alone paralyzes intestinal peristalsis, but also inhibits the action of the kidneys.

Finally, I pass to the consideration of what may be termed direct drainage—that is to say, the insertion into the peritoneal cavity of tubes or gauze.

At the outset I wish to emphasize the fact that *packing* is not drainage. The insertion of a large amount of gauze into the peritoneal cavity prevents true drainage, and does not favor it. Packing may be termed a preparatory step toward the acquisition of drainage. Thus, when we open into a pus collection, intraperitoneal and yet encapsulated, or when we enter a perityphlitic abscess cavity, which to all intents and purposes constitutes an encapsulated intraperitoneal accumulation of pus, we pack primarily with gauze, possibly in a measure to check oozing of blood, but in reality in order to keep the walls of the abscess cavity distended for from 24 to 36 hours while fresh plastic lymph is being thrown out to still further strengthen the barrier of the peritoneal cavity; this accomplished, we insert our tube through which we may maintain the cavity aseptic while the pus-producing lining wall is becoming separated, and in order to prevent absorption into the system or burrowing. This preliminary gauze packing is distinctively indicated in cases where, before operation, one or the other region of the peritoneal cavity has become the site of pus-formation; and here the gauze must be packed, in instances of multiple pus-pockets, wherever these exist. This holds true, in particular, of general septic peritonitis where, if we save the woman at all, it will be after the extirpation of the infectious focus

by packing and subsequent drainage through multiple incision.

The ancient method of drainage by means of glass tubes inserted to the most dependent portion of the pelvis has been given up by probably all operators of experience. Within twenty-four hours after the insertion of such a tube its wall is surrounded by plastic lymph, so that if it drain at all it is simply the hole in which it lies. Further, the insertion of such a tube weakens the abdominal wall at the site of insertion, and again the frequent manipulation it needs while *in situ* adds to the risk of post-operative infection. To-day, where drainage is desirable, probably most operators favor the only sensible route; and this is down-hill, nature's route, into the vagina. After every true abdominal operation, whatever fluids have been introduced into the cavity and whatever fluids form afterward necessarily gravitate to the lowest point in the pelvis; and this is the retro-uterine space. It is here, then, that we must seek to establish drainage; and the wonder to day is that for so many years we persisted in packing gauze or inserting tubes from above there and expecting the drainage to be established uphill. Of course, by either route, whether vaginal or abdominal, it must be borne in mind that after the lapse of possibly not more than 24 hours we are not draining the peritoneal cavity, since this has become shut off by the plastic lymph thrown out above or around the gauze. But at least we do drain downward the fluids which accumulate within these 24 hours; and certainly, when we remove the gauze or the tube inserted into the vagina, we may to better advantage wash out the solids which have accumulated if the drainage opening is down the vagina instead of up through the abdominal wall.

Let us take, for example, the instance of ruptured ectopic gestation under conditions that have offered themselves to me in a dozen instances. On opening the peritoneal cavity, I find it filled with old blood and old clots extending even up under the liver and the spleen. I remove the ruptured tube and, the appendages of the other side being normal, I am not called upon to remove the uterus, as is becoming the fashion nowadays where disease requires bilateral extirpation. After washing out all the blood and the clots that seem possible, there still remain many in the peritoneal cavity. Now I am well aware that in the opinion of many leading operators the peritoneal cavity will take care of these remaining clots and detritus. However this may be, my experience has been that where I drain these cases the convalescence is smoother than where I do not, and therefore I have usually drained. In my early cases I drained by the abdominal route, and although my cases recovered, it was with a fistulous tract upward which required protracted irrigation. I thence was led to drain downward into the vagina, and on removal of the gauze drain within thirty-six hours after operation, the rule is that one thorough irrigation of the retro peritoneal cavity suffices.

Take again total hysterectomy for fibroid, where my custom is to carry a strip of gauze into the vagina and loosely tuck a portion into the space left below the anterior and the posterior peritoneal flaps which I bring together with running catgut. Here again, after the removal of the gauze, a few irrigations by the vagina suffice, except where the field has become infected when I am dealing with a suppurating cavity which has become extraperitoneal and which is readily accessible by the vagina to whatever treatment seems advisable.

Take similarly an operation for pyosalpinx or ovarian abscess, one-sided, where, notwithstanding all our care, pus has infected the immediate operative field. Here I feel much more secure if, having placed gauze at the site which was soiled, I carry it through an opening made posterior to the uterus into the vagina; for, if in consequence of the infection suppuration sets in, the site has again become extraperitoneal and is accessible to treatment from below.

Take another class of cases, where, in my hands, the same principle of drainage has yielded satisfactory results. I refer to appendicital abscesses, of which I have seen a large number in consultation. My rule in such cases has been not to disturb the protecting wall of adhesions which has been thrown out by nature to prevent infection of the peritoneal cavity, but to endeavor in every way to evacuate the pus and to clean out the abscess cavity by measures which will render burrowing impossible and favor drainage downhill. Thus in a number of cases after an exploratory section over the ileo-cecal region has revealed perforation and extraperitoneal encapsulation, I have deliberately closed the anterior incision, reached the pus by incision in the loin, and effected drainage backward and downward. Failing this procedure, I have made a counter opening in the loin, and established through and through drainage. Such measures are certainly more in accordance with reason than the careful packing of gauze down into the pus cavity with subsequent attempts at keeping this cavity clean by washing out from above.

So much for the manner after which drainage should be secured after abdominal work. While the conditions under which drainage is called for are few—indeed, broadly speaking, every case where drainage is not used is so much the better off—when the indication is present, the method should be the rational one I have endeavored to outline, or we may defeat our very aim.

One word in conclusion as to the material best suited for drainage purposes. I have given up iodoform gauze because idiosyncrasy, which cannot be determined beforehand, not infrequently leads to poisoning. Where packing as well as subsequent drainage is the indication, I am in the habit of using a long strip of plain, sterilized gauze about three inches wide. Where simple drainage is the aim, then ordinary sterile candle-wicking or even lamp-wicking answers admirably.

New York; 36 E. Fifty-eighth street.

THERAPEUTIC ITEMS

Ammonium Chloride in Phthisis.—A. KEBBELL
(*Lancet*, 1895, II, p. 1525)

Mr. A. KEBBELL, of Flaxton, York, advocates the use of ammonium chloride in even advanced cases of pulmonary phthisis. He generally gives it internally in doses of $7\frac{1}{2}$ grn. taken in milk every three or four hours, and finds that it is followed by great increase of expectoration, improvement in sleep and appetite, and diminution of night-sweats. He attributes its efficacy—which in his experience surpasses that of any drug he has used or seen used in the treatment of phthisis—mainly to the facility of expectoration, and also, perhaps, to its action on the ulcerated surfaces. He hopes that others will give the drug a trial and report their results. Hitherto the use of ammonium chloride has been mainly confined to simple catarrhal conditions of the respiratory tract, and its application in advanced tuberculous disease is rather novel.

Duboisine as a Hypnotic and Sedative.—S. KURIDIN
(*Deut. Med. Ztg.*, 1895, Dec. 23)

In a paper recently read before the Kasan Society of Neuropathy and Psychiatry the author narrated his experience with duboisine sulphate in 21 patients suffering with various psychical disturbances. The remedy was used subcutaneously in doses of $\frac{1}{2}$ —1 mgm. ($\frac{1}{150}$ — $\frac{1}{60}$ grn.).

As the result of 360 injections, sleep lasting for six hours occurred in 153 instances, sleep continuing for four to six hours in 126 instances, sleep lasting less than four hours in 62 instances, and failure on 19 occasions. The remedy acted most favorably in epilepsy, periodical psychosis, and mania. The author considers the hypnotic effect of the drug as secondary to its action as a motor-sedative; for he has not found it appreciably if at all useful in sleeplessness depending on delirium, organic diseases of the brain, and the like.

Creosote Externally in Malarial Remittent Fever.—L. ROGERS (*Brit. Med. Jour.*, 1896, No. 1728)

The action of external applications of creosote and guaiacal in producing perspiration and lowering the body heat, suggested to the author that they might be of use in the treatment of malarial intermittent fevers. Accordingly, he used 15 min. doses of creosote, rubbed into the axilla and covered with cotton-wool, in 8 cases of severe intermittent fever with temperatures varying from 103.2° to 104.4° F., the temperature being either stationary or rising at the time the drug was applied. In every case perspiration, usually free, was produced in from half an hour to two hours, more commonly in about three-quarters of an hour; and it was accompanied by a marked fall of temperature, averaging 1.6° F. within three-quarters of an hour, 2.3° after an hour and three-quarters, and 3° within four hours of the use of the drug. Not only was the temperature reduced, but at the same time all the distressing symptoms, including the severe headache always present with high fever in these cases, were markedly relieved, and the patients stated they became quite comfortable when the perspiration came on.

In some of these cases during other paroxysms of the fever, which were not treated with creosote, but in which the ordinary diaphoretics (such as ammonium acetate, etc.) were given, the temperature remained high for eight or more hours. In only one

case was there an after-rise during the paroxysm of more than 1° F. In five out of seven cases in which the blood was examined during the fever, Laveran's organism was found in the red blood-corpuscles. In one case of continued fever in which this treatment was tried, a slight fall of the temperature accompanied by some relief of the symptoms was produced, but the good effect lasted only a few hours.

This method of treatment Dr. R. thinks deserves a careful trial in tropical remittent and continued fevers, while he feels sure it will prove of great service in shortening and lessening the severity of the paroxysms of severe intermittent fevers, as its antipyretic and sudorific powers are much greater than those of the diaphoretics in common use, while it has not the drawbacks of the antipyrine class of drugs; namely, in the depressing action on the heart and the tendency to reduce the number of the red corpuscles of the blood, and thus to increase the anemia caused by malarial fever.

Pilocarpine in Diphtheria.—S. A. BARSKY (*Med. Week*, 1896, IV, p. 10)

In the course of a severe epidemic of diphtheria which raged in several districts within the *gouvernement* of Yekaterinoslaw, Dr. S. A. BARSKY has had the opportunity of satisfying himself of the excellent effects obtained from the administration of pilocarpine in this disease—a measure which has already been recommended by several medical men (chiefly Dr. SZIKLAI). He has found this remedy useful in all forms of diphtheria, but has come to the conclusion that it should especially be employed concurrently with antitoxic serum in cases of mixed diphtheritic infection, in which, as is well known, serotherapy alone frequently produces no effect.

In a mild case of diphtheria, or in one of medium severity, Dr. B. merely administers pilocarpine by the mouth, in doses varying according to the age of the child, usually employing the following mixture:

Pilocarpine Hydrochlorate	2-6 ctg.
Ammonium Carbonate	1-2 gme.
Potassium Chlorate	2-4 gme.
Distilled Water	60-120 gme.
Brandy	30 gme.
Sirup Senega	30 gme.

Teaspoonful to tablespoonful, according to age, every hour.

In serious cases he begins by the administration of a hypodermatic injection of from $\frac{1}{4}$ to 1 c.c. of a 2-per-cent. solution of pilocarpine, after which he orders the above mixture. If sufficient improvement is not obtained within from 12 to 24 hours, he repeats the injection; but he has never had occasion to have recourse to more than two such injections.

When the affection extends to the larynx, he also first resorts to a subcutaneous injection of pilocarpine, which he repeats if necessary, continuing with the following mixture for internal use:

Ipecac	30-60 ctg.
Steep in:	
Water	120-180 gme.
Add:	
Pilocarpine Hydrochlorate	2-6 ctg.
Brandy	30 gme.
Sirup Senega	30 gme.

Teaspoonful to tablespoonful every hour.

Lastly, when employing a mixed treatment by antidiphtheritic serum and pilocarpine, B. first orders the ingestion of one of the above mixtures; but if improvement is slow, he has recourse to one or two hypodermatic injections of pilocarpine.

American Medico-Surgical Bulletin

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WILLIAM HENRY PORTER, M.D.

ASSOCIATE EDITOR

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THE HERALDING OF CURES THROUGH THE PUBLIC PRESS.—The glory of the terminal years of this century, as regards medicine, is the marvelous progress made in matters which relate more particularly to its surgical side. When, after an unbiased fashion, we study the advance along the medical side of the art, we find much which is lauded as new, little that stands the test of scientific touch, much which savors of return to methods resurrected from the past. True enough, bacteriological research is full of rich promise, and quiet, honest work in the line of hygiene and the prophylaxis of disease has accomplished much for the good of humanity; but, so far as actual cure of disease which baffled our ancestors is concerned, we stand nearly where they did, even though our diagnostic methods are far superior and our instruments for research are more exact. Notwithstanding all this, every now and then there are whisperings in the lay and the medical press, too frequently in the former before the latter opens its ear to the seductive sounds, that steps are being taken for the giving to the public of a remedy which will enable us to acquire control over disease which has resisted the onslaughts of generations of medical men, and which has thriven notwithstanding scores of exploited and of forgotten cures. The mountain

labors again and brings forth the mouse! The lay press spreads the news abroad, lighting the embers of hope in the breast of many a sufferer; the medical press partakes of the delusion; and then, like the birth of the new Messiah in Denver, the cure fades like a wreath of mist at eve, one or another medical man has secured a transient reputation, the public has again been gulled, and the Science of Medicine has been made a laughing-stock!

For a number of months there have been vague whisperings that a new cure, this time an infallible one, was in preparation. Even as the mutterings from the sky forebode a tempest, so on the morning of the 7th inst. the lay press bristles with this cure and the *Medical Record* the next day prints it in full. This time the formula is given and the names of reputable practitioners are mentioned as vouchers for the formula. We are thus in a position to weigh in the balance of Science the essential elements of this cure—to grow hysterical over it if our judgment should perchance commend it, and to express our emphatic condemnation of the exploiting of matters of this nature in the lay press. Look at tuberculin, and think of the poor public deluded into paying enormous sums for injections which to-day are regarded with much suspicion by leaders in the medical profession! Remember the pneumatic cabinet, and the elixir of life which, by the way, did not prolong the life of the scientist who gave it to the world! Remember, further, the claims advanced for ovarin and testiculin, and medulin, and other *ins* too numerous to mention! Scan the daily press of a few months back for the marvelous discovery made in Berlin by an American and cabled to this country through the medium of the American embassy! *Cui bono?* And so let us hold fast to the words of the poet—*Festina lente*, and, while we join in the hope expressed that this new cure may offer greater ground for stability than that which the past has afforded for scores of others, let us calmly and from a scientific standpoint analyze its component parts and determine if there be warrant for thinking that this latest discoverer may hope that grateful Humanity, in years to come, when pulmonary phthisis has thereby been exterminated, may exclaim when his name is mentioned, *Si monumentum quaeris, circumspice*; for a man's greatest glory would be the extermination of this world-wide prevailing and progressively fatal disease.

THE NEW YORK POST-GRADUATE SCHOOL AND ITS CRITICS.—In its February issue, the *Post-graduate* makes clear and convincing, to its critics in

the *New York Medical Journal* and in the *Sun*, that the hospital connected with the school it represents is a charitable institution in the sense that should entitle it to State aid. Those who are familiar with the conduct of the New York Post-graduate School since its inception realize the vast amount of good it has accomplished toward the betterment of the education of practitioners throughout the country, and thereby toward the betterment of the health and well-being of the communities from which these practitioners come.

Moreover, the post-graduate medical schools have been most potent factors in advancing higher medical education. For, as the general practitioner of five or more years realizes the defects of his original training in medicine, and attends the course of instruction at these institutions, he is in a position, by virtue of his advanced and more practical acquirements, to make it almost impossible for the newly graduated medical men to compete successfully with him. This alone has compelled the under-graduate schools to advance their standards so that their graduates can hope in a measure to cope with this increasing competition in advanced knowledge on the part of the practitioner at large, who has profited by this systematic, advanced post-graduate training.

On careful investigation it will be found that the hospital connected with the Post-graduate School is not run on a self-supporting basis, and yet affords shelter and gives expert services to a large number of paupers. Why, then, is it not entitled to State aid even as are other institutions that are conducted for the benefit of the paupers? Were the teachers in this institution in receipt of salaries, as are many of those connected with richly endowed medical schools we might name, then the case might be argued from a very different standpoint. But the whole history of this institution has been that of one conducted in the interest of higher and better education; and incidentally, in order to attain this aim, it became necessary to possess a large hospital service where such instruction could be given to the best advantage. All the more has this become requisite since the unholy deal whereby the charity hospitals of this city were grabbed for the benefit of teaching institutions which cannot enter the claim that they are conducted on such high grounds as is the Post-graduate School, and as is also, we might incidentally state, the Polyclinic. Most medical men in the city of New York have reason to be proud of the record made by these schools for post-graduate instruction; and the BULLETIN, in the

spirit of justice toward all, would deprecate attacks made on them, whether the source be a lay or a medical one.

THE ANNOUNCEMENT is made through the columns of the daily press that Dr. IRA VAN GIESON has received the appointment to the directorship of the new Pathological Institute of the State Hospitals for the Insane. The opening of this laboratory will give to the State of New York the honor of establishing an institution that is unique in the history of State care of insane patients. Recent advances in the study of the pathology of the nervous system, together with notable developments in the technical methods employed, offer unbounded opportunities for original studies in this most important field. The laboratory is, furthermore, designed to furnish instruction for the medical staffs of the State hospitals, and, in conjunction with the clinical reports of the hospitals, there will be published the official bulletins of the Pathological Institute. The State Commission in Lunacy is to be congratulated on its selection of Dr. VAN GIESON for this important post.

PRELIMINARY REPORT OF THE COMMITTEE ON HYGIENE OF THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.—At the last stated meeting the chairman of this committee, Dr. J. W. BRANNAN, referred to the steps being taken by the municipal authorities to abolish the pernicious custom of harboring tramps in the police stations. Following the example set by the city of Boston, lodging-houses will be opened where the worthy may find shelter, while the chronic vagrants will be sent to the workhouse. He also called attention to the request which will be issued by the Board of Health relating to promiscuous expectoration in public conveyances, which was noticed editorially in a recent issue of the BULLETIN. Further, he stated that steps were being taken for providing a hospital for the care of the needy tubercular wards of the city.

DISPOSITION OF GARBAGE.—After months of investigation the head of the Department of Street-cleaning of the city of New York has made a preliminary report to the Mayor in regard to the final disposition of garbage. In our next issue we shall discuss this report, aided by certain information secured through a personal interview with a representative of the department, a reporter from the BULLETIN having been sent for that purpose.

GENERAL MEDICINE

Department Editors

WILLIAM CHARLES GUTH, M.D.

and

HENRY TURNER BROOKS, M.D.

Collaborators

ADOLPH ZEH, M.D., ADOLPH BARON, M.D., JOHN HOCH, M.D., WILLIAM VISSMAN, M.D., WILLIAM Y. FINCH, M.D., GEORGE W. BLANCHARD, M.D.

Atypical Croupous Pneumonia.—F. HARBITZ
(*Cent. f. Bakt. u. Parasitk.*, 1895, XVIII, No. 19, p. 593)

In addition to true croupous pneumonia dependent upon infection with the pneumococcus, there also exist other more atypical pneumonias having a somewhat different symptomatology and prognosis, as well as a different pathological anatomy and etiology. Of such cases the author describes five in reference to their pathological anatomy and etiology. Among the symptoms the insidious beginning was first noted, in addition to signs of severe general infection, intense cerebral phenomena, and irregular, pyemic fever; all cases ended fatally. In the lungs there was more or less distinct lobar infiltration, chiefly soft and without granular cut surface; in other cases broncho-pneumonic foci were present in one lung, with lobar infiltration in the other. In addition there was a tendency to softening, which showed itself as irregularly distributed, semi-purulent islets in the infiltrated lung-tissue. The appearance was very variable and resembled phlegmonous and erysipelatous processes. In four cases exclusively streptococci were found which corresponded to the streptococcus pyogenes; in one case with pronouncedly atypical course and complicated with otitis media, a staphylococcus, coli commune and pyocyaneus were met with, but no streptococci or pneumococci. Out of the pus from the ear staphylococci and pyocyaneus were cultivated. The author hesitates to attribute any special significance to the bacteria found in this case.

Lavage of the Naso-pharynx.—PISSOT (*Thèse de doctorat*, Paris, 1895; *Ripault's review in Annales des Maladies de l'Oreille et du Pharynx*.—XXI, 1895, p. 459)

The author recalls, first of all, the utility of lavage by the aid of Weber's siphon in ozena, caseous coryza, purulent rhinitis. It prevents, to a certain extent, the formation of peri-pharyngeal abscess of lymphatic origin.

In the course of eruptive fevers lavage prevents secondary infections, always so grave, otitis and bubo, and even nephritis in scarlatina; otitis and purulent rhinitis in measles; otitis and even orchitis in mumps. Typhoid fever has a frequent complication in an otitis which starts ordinarily from the naso-pharynx, and which is explained by the richness of the locality in lymphoid tissue. The ear is also very much exposed in diphtheria, especially in the polymicrobic form, which has a great predilection for the nose and naso-pharynx. In these diseases, as also in pneumonia, lavage is always indicated. Large irrigations of boracic acid, employed two or three times a day, are very effective in sweeping out infectious products that collect in the nose and naso-pharynx. Statistics from the practice of GOUGUENHEIM and BURLUREAUX strongly support these conclusions.

The Subcutaneous Use of Creosote and Guaiacol in Pulmonary Phthisis.—F. R. WALTERS (*Brit. Med. Jour.*, No. 1824, 1895)

The subcutaneous method of administration has been adopted in one form or another by SCHETELIG, PICOT, DIAMANTBERGER and WEIL, BURLUREAUX, and others. SCHETELIG uses 20 to 30 per cent. solutions of creosote in oil of cloves, injecting 16 minims into the thigh or abdomen from four to twelve times daily, leaving the needle in and applying gentle massage between the injections, which are repeated at intervals of a quarter of an hour to an hour. Sometimes the taste of creosote was noticed after the injection, but there was no digestive disturbance, and marked antipyretic effects were observed. Guaiacol is given in the same way, in one-third to one-fourth the dose, by the same physician. Liquid vaselin is preferred as a medium by MEUNIER, of Lyons; while PICOT, of Bordeaux, injects a mixture of sterilized olive oil and vaselin containing 1 per cent. iodoform and 5 per cent. guaiacol, beginning with 1 c.c. of the mixture and increasing to 3 c.c., remarking that no swelling or other local reaction follows.

DIAMANTBERGER and WEIL, at the Paris Congress for Tuberculosis, in 1891, advocated injecting creosote dissolved in an equal volume of sterilized almond oil. Of this they injected two Pravaz syringefuls in twenty-four hours, and after 1000 injections have had no accidents. It is claimed by PRÉVOST that a chemical combination of guaiacol with oleic acid is much less irritating than a mere oily solution.

BURLUREAUX uses a special apparatus originally contrived by GIMBERT and modified by himself. By this apparatus the oily solution is driven into the body by atmospheric pressure, the degree of which is indicated by a manometer. Not more than 20 gme. (5 fld. dr.) per hour must be introduced, so that at the height of the treatment most of his patients receive from 50 to 100 gme. of creosoted oil *per diem*; a single injection may last several hours. His treatment begins with 5 gme. of a 1 in 15 solution; and if no signs of intolerance appear, he increases the dose to 50 gme. or more. One of his patients received 5 kilos. under the skin in five months, along with 1 kilo. per rectum. This represents between 30 and 40 minims of pure creosote per day. The largest quantity injected at one sitting was 220 gme., or nearly 8 oz. of a 1 in 15 solution.

Small doses persistently badly borne means a highly unfavorable prognosis. When treatment is doing good the appetite improves, flesh is gained, and the local lesions show signs of healing. Shivering, perspirations, and a condition resembling the collapse of pernicious malarial fevers, with or without high temperature, indicate intolerance of the drug. Persistent taste of creosote or black urine is of bad import when appearing after small doses.

The author gave his cases injections from once to three times a week, all his patients at the same time taking creosote or guaiacol in some other form to about 10 to 15 minims daily. He injected from 20 to 30 minims of a 1 in 15 solution to begin with, running up to from 1 to 2 dr. twice or thrice a week. The largest doses he injected were 300 minims of 1 in 15 creosote solution, and 165 minims of 1 in 5 guaiacol. In two cases treatment was continued for two months, in a third case for eight months, and in a fourth for nine months.

Local effects were slight burning at the seat of

injection, which soon disappeared. A hard and indurated swelling was left, the induration passing off in about a week.

The author, in concluding, says the doses should be very cautiously increased, and if the kidneys are unsound the treatment should not be resorted to at all. This treatment should not be tried where there is a large area of inflamed lung or decided signs of intolerance. He believes 1 in 5 guaiacol solution to be as well borne as 1 in 15 creosote solution. The results with the ordinary syringe are apparently as good as with the apparatus of Burelureau.

The Occurrence and Detection of Urobilin in Normal and Pathological Urine.—A. JOLLES (*Cent. f. inn. Med.*, 1895, No. 48-49; ref. in *Munch. med. Woch.*, 1895, p. 1173)

The results of the above research, based upon numerous experiments, are as follows:

1. The normal coloring matter of the urine is with great probability to be considered identical with the highest oxidation product of bilirubin; occasionally coloring matters occur in the urine which are to be distinguished from normal coloring matter only by their high oxygen content.

2. The coloring matters of the urine, which in their spectroscopic behavior and chemical reaction are designated as urobilins (=hydro-bilirubins), may be divided into physiological and pathological urobilins. The incompletely oxidated coloring matters of the urine belong to the physiological urobilins.

3. To the physiological urobilins also belongs that coloring matter which, on standing of normally colored urine, makes itself manifest by an increase of coloration.

4. Both varieties of urobilin are sharply differentiated by the fact that the physiological urobilins, after oxidation with an alcoholic solution of iodine or nitric acid has occurred, show neither fluorescence (after addition of ammonia and zinc chloride) nor a characteristic spectrum; while the pathological urobilins, after the same treatment, retain their optical properties and fluorescence.

5. In order to avoid confusion of the physiological and pathological urobilins, it is necessary to first isolate the urobilin from the urine, and then carefully examine.

This is best accomplished as follows: 50 c.c. of urine are placed in an appropriately shaped agitation-cylinder, and 5 c.c. of a dilute, freshly prepared limewater solution and 10 c.c. of chloroform added. The whole is then well shaken for several minutes, the cylinder allowed to stand for a few moments until the chloroform and the precipitate settle.

The latter are allowed to flow into a small porcelain dish, evaporated to dryness over a water-bath; the residue triturated with about 5 c.c. of dilute alcohol (about 30 vol. per cent.), under addition of a few drops of concentrated nitric acid, and filtered.

In the presence of pathological urobilin the filtrate appears brown-red to granite-red; shows, on appropriate dilution, the characteristic spectrum between the Fraunhofer's lines C and F, nearer to F, and a green fluorescence of the ammoniacal and zinc-chloride solution. If a part of the filtrate is shaken with amyl alcohol, the latter takes up the coloring matter and likewise shows the sharply defined absorption spectrum.

6. The coloring matter of the bile (bilirubin) and of the blood are to be looked upon as the source of the pathological urobilin.

NEUROLOGY AND PSYCHIATRY

Department Editor
PEARCE BAILEY, M.D.

Collaborators

ALBERT WARREN FERRIS, M.D., LEWIS A. CONNER, M.D., and THOMAS PECK PROUT, M.D.

Epidemic of Acute Anterior Poliomyelitis.—C. S. CAVERLY (*American Med. Jour.*, XXVI, 1896, p. 1)

The epidemic consisted of 132 cases of the disease, occurring in the Otter Creek Valley, Vt., during the summer of 1894. The following are some of the facts to be learned from the epidemic:

Males are vastly more liable to the disease than females. Of those cases in which sex was reported 39 were males and 22 were females. The disease is non-contagious, as it was rare to have more than a single case in a family.

Fever and nausea were very common as initial symptoms. Thirty cases out of the total number presented a simple erythema and two had urticaria.

Convulsions occurred in 12 cases. Muscular rigidity of neck or back muscles occurred 20 times, and five of these cases were fatal. Hyperesthesia of the skin is noted in 36 cases. Soreness of the joints of the affected limb occurred in nine cases.

Paralysis occurred in 119 of the cases. Of the remaining 13 seven died before paralysis had time to develop, and the remaining six that had no paralysis had a group of symptoms which were common to the initial stage of those who were paralyzed.

Fifty-six cases were known to have completely recovered from the paralysis, and the author thinks there were more.

Eighteen deaths occurred—10 males, 5 females, and 3 in which sex was not stated.

The epidemic was especially peculiar in that an acute nervous disease, paralytic in its nature, affected the domestic animals over the same geographical area.

The Etiology of General Paresis.—CLOUSTON (*Dublin Journal*, CCLXXXVII, 1895, p. 172)

The *Hospital* summarizes the results of Dr. CLOUSTON'S investigation into the prevalence of general paralysis in Morningside and other asylums. In 1894, Scotland, with a population of 4,000,000, had 150 cases in her asylums, besides those which were to be found in private practice; England had 1400 cases; "Ireland, with a population equal to that of Scotland, only sent 52 cases." As to causes, the most frequent, according to Dr. CLOUSTON, is alcoholic excess; next in order being worry, misfortunes, overwork, and, finally, "love and religion."

Treatment of Morphinism.—GILLES DE LA TOURETTE (*N. Y. Med. Jour.*, LXII, 1895, p. 738)

We are so often led to read articles upon this subject by physicians who are induced by self-interest to write their experiences in their sanitariums, and in which the central idea is to present to the profession the advantages of sending morphine inebriates to the retreats in question, that it is refreshing to meet with an occasional contribution to such literature from the pen of some unprejudiced scientist like DE LA TOURETTE. The article is abstracted in the *N. Y. Med. Jour.* from the *Bull. gén. de Therap.* for September 15, 1895.

According to the author, there are two methods of treating morphinism: the immediate suppression of the poison, and the slow suppression—that is, diminishing the daily dose of morphine progressively. Each of these methods, he says, has its indications. Generally, when patients have been in the habit of taking eight or ten grains of morphine a day, immediate suppression is the best way, as the other method requires too long a time to break off the habit.

The patient should be placed under conditions peculiarly favorable to the treatment. Isolation in a hydrotherapeutic establishment with a special physician attached to it is essential, as the treatment can be more strictly carried out there than at home. The patient's organs should be examined, for in cases of cardiac affection or angina pectoris immediate suppression may produce syncope. The digestive canal should also be examined and the digestive functions regulated. The hypodermic injections of morphine must be given regularly, in the morning, at noon, and at night, as these are the three most important hours of the day. For this reason isolation is particularly necessary, for the habitual tendency of a patient to take a hypodermic injection at any time when he feels the need of it presents a difficulty hard to overcome. If the patient has been in the habit of taking 15 grn. of morphine a day, half the dose only should be allowed on the first day of the treatment; generally, says the author, on the first day two-thirds of the dose are suppressed, on the third day it is diminished to $2\frac{1}{2}$ grn., and on the fifth day no morphine is given at all. During the first 12 hours the treatment does not provoke any troublesome symptoms, and the patient feels comparatively well. At the end of 24 hours, however, the following symptoms supervene: 1. Syncope, which, if very serious, is sometimes fatal. If there is no cardiac affection, it is of slight importance. For this symptom an injection of from a grain to a grain and a half of morphine is given. For vomiting in these cases champagne, iced grog, etc., are given. 2. Diarrhea. This symptom should be carefully observed, for, according to SOLIER, the poison is eliminated by the intestinal canal. There are, however, cases where the diarrhea becomes so intense that it results in true relaxation diarrhea, and in these cases this symptom must be treated. For maniacal excitation and delirium soothing spongings or baths are prescribed. During convalescence the diarrhea should be carefully watched, as it may persist for three or four weeks, often making it necessary to resort to the injections. It is the same in regard to insomnia. If the patient can remain for a month or two longer in a special establishment, the rest will be a valuable aid in the treatment. Baths, douches, tonics, and good food should be prescribed to insure the repair of the physical condition and to avoid the troubles of convalescence. The patient should be weighed, for an increase in weight shows the beneficial results and a good condition of the digestive functions. If practicable, it is well to send the patient away in order to avoid all causes capable of provoking a return of the habit.

With regard to slow suppression of the drug, says the author, this method does not give such good results, owing to the length of time required for the treatment, which is from two to three months. It fails, he says, at the least, eight times out of ten. Professor CHARCOT employed this method as follows: The patient is made to give up from the beginning a third of his daily dose of morphine. 2. The thebaic extract is substituted for morphine; for

example, for $\frac{3}{8}$ grn. of morphine from $\frac{1}{4}$ grn. to $\frac{1}{10}$ grn. of opium is given, to which may be added from 45 to 75 grn. of potassium bromide where there is pain in the legs or excitement.

When the morphinism has yielded to the treatment the use of the bromide and the opium should be stopped, as they are no longer useful. It is then a question only of ten or twelve days before a cure is completely effected.

SURGERY

OPHTHALMOLOGY, OTOTOLOGY, RHINOLOGY,
LARYNGOLOGY, DERMATOLOGY, ORTHO-
PEDIC AND GENITO-URINARY SURGERY

Department Editor
SAMUEL LLOYD, M.D.

GENERAL, ORTHOPEDIC, AND GENITO- URINARY SURGERY

In charge of B. FARQUHAR CURTIS, M.D., T. HALSTED MYERS, M.D., WILLIAM B. COLEY, M.D., GEORGE KNOWLES SWINBURNE, M.D., E. M. FOOTE, M.D.

Resection of Meckel's Ganglion for Neuralgia.—

GUINARD (*Gazette des Hôpitaux*, 1895, p. 1251)

GUINARD, in reporting three successful cases, two with freedom from pain for over two years, urges a reconsideration of this operation on Meckel's ganglion, instead of the more dangerous one of removal of the ganglion of Gasser. He was seconded by CHALOT, who had lost a patient from the latter operation by wounding the sinus with his strabismus hook while attempting to remove the ganglion.

Epispadias with Undivided Prepuce.—KORNFELD (*Wien. med. Presse*, 1895, p. 1642)

KORNFELD showed a case of glandular and penile epispadias in an adult, with a cleft extending backward from the meatus for 5 ctm. The penis was otherwise well developed and capable of use in sexual intercourse, although one corpus cavernosum was shorter than the other, giving the organ a curvature to the left and a torsion on its long axis so that the dorsum of the organ was directed toward that side. An incomprehensible variation, however, from a developmental standpoint, was the presence of a natural prepuce which covers over the defect. The patient has a gonorrhea, and many small sinuses could be seen upon the exposed floor of the urethra, which were infected, and showed very well the difficulty which must exist in any case of gonorrhea when such sinuses are numerous, even with endoscopic treatment.

Treatment of Bone Cavities after Sequestrotomy, etc.—NEUBER (*Aertzliche Rundschau*, October 15, 1895, p. 657)

NEUBER speaks of the various methods of treating cavities in bones left after sequestrotomy or similar operations, including turning in of skin, blood-clot, implantation of bone, decalcified bone, etc. He considers the use of iodoform important in these cases, and employs an emulsion in starch. This is made of wheat starch 10 gme. being mixed with a very little cold water and 200 gme. boiling hot 2 per cent. carbolic-acid solution being added, with 10 gme. iodoform stirred in. On cooling, this makes an even, yellow, jelly-like mass, which melts at the tempera-

ture of the room, but can be maintained unaltered for weeks, except that it grows a little more fluid. The iodoform changes a little with exposure to light, so that it should be kept in the dark. Excellent results were obtained with this method, all but 3 of 22 cases healing *per primam*.

Treatment of Spasmodic Wry Neck by Curare.—

WEISS (*Lancet*, No. 3745, p. 1467)

The author at a meeting of the Vienna Medical Society, exhibited a patient who had suffered for a short time from torticollis, with spasms of the right sterno-mastoid muscle and the rotators of the head and vertebral column. The chin was turned to the left, and the head inclined toward the right, the occiput almost touching the right shoulder; the right sterno-mastoid was hypertrophied. As arsenic, bromine, and faradization of the left side had been used without any success, nerve-stretching was performed. The right accessory nerve, which was stretched, was found to present a peculiar condition—that of hyperlymphosis nodosa. A too forcible operation being hazardous, only the bundle of fibers at the place of entrance into the muscle was stretched. Three weeks after this operation the previous symptoms returned, and Dr. WEISS injected a solution of curare into the neck. The solution contained 0.15 gme. curare to 10 gme. water. The injection was made every two days; the patient's condition improved from day to day, and at present he is entirely free from torticollis. At first half a Pravaz's syringe-ful is to be injected, and the amount is to be increased until tremulousness is induced.

Suprapubic Cystotomy for Hemorrhage into the Bladder.—E. ELIOT, Jr. (*N. Y. Med. Jour.*, November 9, 1895, p. 589)

According to E., a review of the literature failed to find a case of hemorrhage from the kidneys into the bladder in which a collection of blood in the bladder endangered that organ; the conditions which have produced hemorrhage so severe have been from (1) tumor of the bladder, especially mucous polyp; (2) erosion of blood-vessel in submucous layer of bladder from pressure of a rough calculus; (3) rupture of varices in the bladder-wall, usually near the base; (4) rupture of a vein in the posterior urethra, the cause of which may be the passage of an instrument into the bladder through the deep urethra.

When the escape of blood is rapid the dangers are (1) from hemorrhage, (2) rupture of bladder from over-distention, (3) suppression, from mechanical obstruction of the mouths of the ureters.

The indications are to stop hemorrhage, empty the bladder, and prevent the tendency to suppression. Aside from the palliative measures, all these indications may be met by suprapubic cystotomy, when the conditions found may be dealt with according to necessity: A tumor removed, a blood-vessel ligated, for a ruptured varix, pressure, the cautery, etc.; for hemorrhage from posterior urethra, an iodoform gauze tampon, which may be drawn into the internal meatus by means of a loop of silk which has been introduced into the bladder per urethram by means of a soft catheter.

E. details an interesting case on which he operated at Presbyterian Hospital. The patient, 44 years old, had a single attack of gonorrhea, 25 years before. Three years ago began to have symptoms of stricture, which was treated by his physician by the passage of sounds. Had then no trouble till recently, when symptoms of stricture recurred, and he was again

under treatment, sounds being used. One day a 26 F. sound was passed; this was followed a few minutes later by a desire to urinate, but attempts to do so were unsuccessful, only a few drops of blood passing from the urethra. In an hour pain in bladder increased and the desire to urinate was constant. Was admitted to Presbyterian Hospital six hours after the passage of the sound. Examination showed a smooth, firm, elastic tumor extending up to umbilicus, percussion note was flat over tumor; elsewhere over abdomen tympanitic. Passage of a catheter brought small clots of blood, and an aspirator applied to catheter brought nothing. Patient already began to show signs of suppression, and was prepared for operation—suprapubic cystotomy. A rectal bag was used. The bladder-wall, when reached, was blue, thin, and elastic; this was incised and a large amount of clotted blood and bloody fluid removed. No bleeding point was discovered; nor could blood be seen coming from deep urethra. Bladder was loosely tamponed; bladder rapidly regained its tone and recovery was uninterrupted.

Suppurative Gonorrheal Orchitis.—A. ROUTIER. (Transl. from *Méd. moderne*, 1895, in *Med. Bulletin*, Sept., 1895, p. 321)

In a lecture on gonorrheal epididymitis, R. reports a case of orchitis and epididymitis occurring with an acute gonorrhea, which went on to suppuration, and microscopical examination of the pus showed only the presence of gonococci.

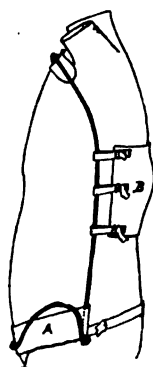
Spinal Brace.—HOADLEY (*Jour. Amer. Med. Assoc.*, XXV, No. 21, p. 898)

Hoadley presented to the American Orthopedic Association a brace designed especially for the support of the spine between the middle of the lumbar and the middle of the dorsal regions. In its simplest form it consists of a steel frame made of light round rod-steel, from three to five-sixteenths of an inch in diameter, two aprons and a chest pad, adjusted in contour to fit the upper anterior portion of the chest. The pad should be in length about three times its width and rests immediately below the sterno-clavicular articulations. It should be as long as practical without being interfered with by the action of the pectoralis-major muscles in the movement of the shoulder. It should be made of sheet metal hammered to give shape and rigidity, covered and lightly padded.

Inspection of the cut will show the form and application of the brace.

The canvas apron A that crosses the pelvis shrinks and molds itself over and around the anterior spines so that a most satisfactory support for the lower end of the brace is secured. The second apron B, which is to extend from one lateral portion of the frame across the back to the other, is to be also of double thickness of canvas made in shape to fit any angular deformity. It should be from three to six inches wide without whalebones.

Hoadley claims that the upper front part of the chest, the pelvic bones below, and the weaker portion of the spine behind are thus retained in relative position to each other with positive certainty, and he holds that these are the only points where definite and reliable resistance to deformity can with certainty be applied and maintained.



EYE AND EAR

In charge of WILLIAM OLIVER MOORE, M.D.

The Radical Operative Treatment of Trichiasis.

—SCOTT (*The Ophth. Rev.*, XIV, No. 167)

An incision is made on the conjunctival surface of the lid parallel to and 2 mm. from the ciliary margin, dividing the tarsus completely. The eyelid is replaced in position, and its divided margin grasped in forceps and forcibly everted by carrying the handle up till it touches the brow. One needle, carrying 18 inches of silver wire, is passed vertically down from the brow through the skin surface of the center of the lid into the substance of the upper part of the tarsus, emerging at its divided edge; it then enters the original anterior surface of the lower separate portion of the tarsus, to be finally brought out on the free margin of the lid, midway between the lashes and conjunctival edge. Two other sutures are similarly introduced, one toward each end of the eyelid. The opposing ends of these three sutures, which should be left long, are now separately twisted together, not so tightly as to cause constriction, but sufficiently so to maintain the lid in its everted condition. The remainder of the suture is now passed along in the tissue of the eyebrow from one extremity to the center, at which points the corresponding twisted strands of wire are attached to it; the needle is reintroduced at the center of the eyebrow, close to its point of emergence, and is brought out at its opposite end, when the third remaining twisted suture is secured to it. When the lower lid is the site of the operation, the cheek is used as a fixation point instead of the eyebrow.

Blood-poisoning in Ear-piercing.—(*Medical News*, LXVIII, No. 1)

The danger of blood-poisoning in piercing the ear is not to be ignored because the operation is supposedly not a dangerous one. The cleanest person, when it comes to a surgical operation, is without proper scientific laving, medically unclean. A needle, any needle, is taken; any thread, which may have been in the work-basket months, is used. A cork is taken out of some bottle, any bottle, without thought as to what is in the bottle or how long it has been exposed to the dust. Under such conditions, inflammation and suppuration naturally result.

On the Indications for Mastoid Operations in Acute Purulent Otitis Media.—KNAPP (*Arch. of Otol.*, XXIV, Nos. 3-4)

The author concludes as follows:

(1) There is in acute otitis media no symptom which by itself constitutes a sufficient indication for a mastoid operation.

(2) The indication for operating is derived from the *ensemble* of the symptoms and the course of the disease.

(3) Even if the patient does well and seems cured, we should for weeks and months not lose sight of him; for acute purulent mastoiditis is a treacherous disease.

(4) Whatever the symptoms are, we should, as a rule, begin the operation by opening the antrum, and then be guided by the conditions coming into view.

He further states that BEZOLD's experience during the years 1887-1892 showed 701 cases of acute purulent otitis. Sixty-two operations were made—namely, five Wilde's incision, and 57

Schwartz's openings of the mastoid, or about nine per cent. of all cases of acute middle-ear suppuration, and complicated with such a degree of mastoid inflammation as to make a spontaneous recovery improbable.

DERMATOLOGY*

In charge of HENRY W. STELWAGON, M.D.

Infectious Eczema in a New-born Infant.—LE GENDRE (*Med. Week*, 1895, III, p. 309)

Dr. LE GENDRE cites a case of an infant between five and six months of age, who had a seborrheic eczema and from whom two wet-nurses became infected, one developing an abscess of the breast and the next one showing congestive phenomena of the mamma.

Erysipelas in its Etiological Relation to Preceding Skin Lesion, and its Local Treatment.—CHAS. W. ALLEN (*Med. Rec.*, 1895, XLVIII, p. 723)

The author states that in 100 cases of erysipelas 50 were found to be due to a pre-existing skin lesion. The treatment recommended is the combination of the compression and protective; that is to say, the application of bands of rubber adhesive plaster and covering the inclosed parts with ichthylol in collodion in strength varying from 10 to 50 per cent.

Formulæ for the Treatment of Urticaria Papulosa in Rickety Children.—NEEBE (*Med. Week*, 1895, III, p. 312)

Antipyrine 1 gme. 50 ctg.

Syrup of Orange-peel } 25 gme.
Distilled Water }

F. S. A.—To take one or two teaspoonfuls on going to bed at night.

β Naphthol 0 gme. 40 ctg.

Vaselin 20 gme.

Mix. For external use.

The pruriginous parts are rubbed energetically with this ointment for ten minutes.

Phosphorus 0 gme. 2 ctg.

Cod-liver Oil 100 gme.

F. S. A.—To take one or two teaspoonfuls daily.

The first two formulæ are calculated to combat the pruritus, while the third is directed against the rickets.

Impetigo in Children and its Treatment by Donovan's Solution.—SAINT-PHILIPPE (*Méd. mod.*, August 24, 1895)

The following treatment is suggested by SAINT-PHILIPPE for impetigo in children. Besides using local treatment in these cases, the author has found the internal administration of Donovan's solution beneficial. The formula which he uses is that of Soubeyran, where iodine, arsenic, and mercury are united in the dose of 1 gme. to each 100 gme. Five or six drops morning and evening may be given to children up to one year of age; ten to fifteen drops to children from one to three years of age. The crusts dry and fall off little by little, the itching is allayed, and cure rapidly takes place. The general condition is improved at the same time.

* The editor acknowledges his indebtedness to Dr. Eva Knight for the preparation of this report.

OBSTETRICS; GYNECOLOGY; PEDIATRICS

Department Editor
THOMAS S. SOUTHWORTH, M.D.

Collaborators
GEORGE G. WARD, Jr., M.D., GEORGE R. WHITE, M.D.,
EDWARD N. LIELL, M.D., WILLIAM B. NOYES, M.D.

The Anatomy of the Endometrium, and the Technique of Its Removal by Curettage—W. R. PRYOR (*Amer. Gynec. and Obstet. Jour.*, VIII, No. 1, p. 10)

The uterus is a hollow muscle lined with a peculiar membrane. In certain animals this organ is guarded by a sphincter muscle, lined by a true mucous membrane supplied with compound racemose glands, called the cervix. Such is the arrangement of structure in women.

The endometrium proper begins about the os internum, lines the inside of the entire corpus uteri, and extends a variable distance into the fallopian tubes. It rests directly upon the muscle, without a basement membrane. The integrity of the structure is maintained by a delicate meshwork of reticulated tissue, which springs from the connective tissue of the muscle and vessels. Lying between the trabeculae of connective tissue, crowding all the interfibrillar spaces and attached to the fibers, are multitudes of granular nucleated corpuscles, resembling white blood-corpuscles in size and shape; but there are seen, closely attached to the reticulated tissue, minute granules, and between these and the above there are all gradations. The corpuscles multiply by karyokinesis and probably some other more prolific source. Whether the minute granules are embryonic corpuscles, or merely granular protoplasm from more mature cells, is unknown.

These corpuscles are abundant in the muscular bundles. This retiform tissue is penetrated throughout its entire depth by crypts, which extend even between the fibers of muscle. They are both single and branched.

The surface of the endometrium and the crypts are covered by a single layer of cylindrical ciliated epithelium. The epithelium is attached loosely to the subjacent retiform tissue. Everywhere between the crypts are lymph spaces which become distinct cavities in the muscle. Above the os internum these lymphatic channels unite to pass between the layers of the broad ligament; below the os internum they extend beneath the broad ligaments, and end in lymphatic glands over the obturator foramina. The capillaries penetrate as far as the epithelial layer on the surface. At once one is struck by the fact that this soft, unstable membrane is surely not a mucous membrane, but is a lymphoid organ without glands. I have striven to solve a few problems that have come to me from a study of the phenomena incident to certain states of the woman:

The lack of physiological function in the endometrium of the very fat; the remarkable activity of absorptives which follows the removal of the uterus, similar to what we see ensue after destruction of Peyer's patches by typhoid fever; the effect of hysterectomy upon the progress of phthisis pulmonalis; the synchronous development of the thyroid and the lymphoid endometrium.

These and many other observations have forced upon me the conviction that we must class the endometrium among the lymphoid organs.

Less difficult is it to determine whether we shall place the endometrium among the lymphoid organs which are engaged in the formation of blood or those more closely allied to the absorptive system.

Where the differentiation between hematopoietic and chylipoietic structures begins we do not know.

The endometrium, with a cycle commonly of 28 days, swells because of the marvelous increase in the interfibrillar lymphoid cells; the old capillaries enlarge and new ones readily form. The tension increases to a certain point when the epithelium becomes loosened and melts off. The lymphoid cells are then exposed upon the surface of the membrane, and further increase in the vascular tension results in rupture of the capillaries with the escape of blood into the uterine cavity. For four days usually this bleeding continues, the vascular pressure ceases, and with it the hemorrhage; but for some days the discharge of lymphoid cells continues and appears as a milky fluid. Even before this ceases a reproduction of the epithelium begins.

Summed up in one sentence, the elaborate structure of the endometrium, and all this delicate association of phenomena, are designed for one thing only—the union of a number of lymphoid cells, under the stimulus of a fecundated ovum, to form a decidual cell.

CURETTAGE: PREPARATION FOR THE OPERATION.—I now pack the vagina loosely, 24 hours before operation, with a moist bichloride dressing (1 to 5000) to loosen the superficial vaginal epithelial layers. The general treatment is that usual in surgical procedures.

At the time of the operation the vagina is scrubbed with lysol (1 per cent.) and a silver-brush. All instruments are boiled in soda solution, and the nail brushes, the towels, sheets, plain gauzes, *irrigator and basins* are steam sterilized.

The instruments are laid upon a sterile sheet and kept covered. I cleanse myself and assistants with lysol (2 per cent.). For irrigation I use either 1-per-cent. sterilized salt solution or saturated solution of boric acid. I never irrigate with antiseptics, not even Thiersch's solution. No sponges are used. As a dressing I use my form of iodoform gauze only. The patient is on the back.

The cervix is grasped by blunt forceps and pulled down, and the direction of the uterine canal determined by the sound, and the packing applicator bent to conform to the shape of the sound.

If the cervix be soft or lacerated I dilate only, but insist upon a dilatation in a non-pregnant uterus of at least half an inch. If I do not get it by use of the dilator alone, I incise the cervix. In non-septic cases the cervix is amputated if the operation is indicated.

The function of the cervical ganglia must be so obtunded as to prevent uterine contractions, except in post-partum cases.

I use Sims dilators, slightly modified, but do not approve of dilatation by graduated sounds.

In markedly septic and specific cases it is well now to swab the cervical mucous membrane with a strong carbolic solution.

Dilatation being sufficient, I curette next, using as large an instrument as can be introduced, and with a smaller one for the scraping out of the tubal openings and angles.

We have now produced within the cavity of the uterus a quantity of *débris*, and its removal is absolutely essential to success. I accomplish this by means of as large a double catheter as I can introduce.

The uterus is now packed full of iodoform gauze, using for this purpose no speculum or forceps, but only a stiff applicator.

I get into the virgin uterus one yard of gauze an inch and a half wide. A uterus aborted at the third

month will contain one yard, three inches wide, or even more. It must be packed tightly. If the cervix has been incised, the rents are not sewed up, as they close sufficiently without this. The vagina is snugly packed with iodoform gauze. The woman is up in three days. Dressings are not removed before the fourth day, usually on the eighth. If the uterus is large and septic it is again packed with gauze, but I do not often do this. With large uteri I begin ichthyol tampons in the vagina at the third week to aid involution, but absolutely prohibit coitus, douching, etc., for two months.

Believing, as I do, that this structure is most delicate, that all antiseptics produce slough, that the measures must be adapted to the function of the organ, and that we must so do the operation that an anatomically perfect endometrium may be produced, I never introduce into the uterus any irritant whatever. Innocent as is iodoform, I use but a 10-per-cent. gauze.

Rational Treatment of Pertussis.—FRANCIS T. B. FEST (*The Journal of Am. Med. Ass.*, XXV, No. 7, 1895)

Pertussis is a contagious disease of unknown bacterial origin, which manifests itself in a spasmodic cough. It is a local disease of the larynx, acting upon the nerve supply, and causing spasms of the organ. The course of the disease shows three distinct phases—the catarrhal, paroxysmal, and declining.

The first stage shows only the mild catarrh of the bronchi, nose, or conjunctiva, with excessive watery secretions. This lasts from two to seven weeks, or even less time in infants.

The paroxysmal stage affirms the diagnosis by its characteristic whoops. The expectoration is watery, sometimes bloody. There is sometimes vomiting or other digestive disturbance.

The whoops may occur every half-hour, and a cyanotic condition develops which sometimes leads to asphyxial convulsions and death. The irritation may favor capillary bronchitis and catarrhal pneumonia. After 10 weeks the paroxysms become milder, and the declining stage is reached.

In treatment, as the disease is local and affects the larynx, we treat it locally. It is of neurotic character, and therefore we give a drug which acts on the nerves. For local laryngeal treatment, we find that ordinary antiseptics, including boracic acid, thymol, resorcin, bromoform, mercurials, and many others used, are too weak or too irritating. Peroxide of hydrogen is the most effective antiseptic and least irritating we possess. It should be sprayed directly into the larynx of the child, in the strength of 30 volume peroxide (hydrozone) 1 part; distilled water, 10 parts; glycerin, 1½ part. The parents may be taught to do this two or three times a day. If the physician administer it, a solution newly prepared each time should be used.

Belladonna should be restored to its former use, and given, as JACOBI says, in such doses as to get the belladonna action—the flushing, which, in a child 2 years old, is 6 drops of the tincture 3 times a day. This is increased to gtts. xxv (!) as a maximum for an adult.

If the paroxysms are severe, paint larynx with cocaine. If vomiting is severe, give menthol. Fresh air, good nourishment, and tonics are absolutely essential. Alcohol may be of service.

A New Postural Method of Treating Prolapsus of the Umbilical Cord.—A. BROTHERS, New York (*American Journal Obstets.*, 1895, No. 6, p. 849)

The percentages of infantile mortality due to this cause vary according to different authors, but from the very lowest estimate, one-quarter of the cases are fatal to the child. The discovery of the prolapsus before the rupture of the membranes offers a far better prognosis than if discovered after. The greatest danger is in prolapsus with a vertex presentation. In primiparæ the infantile mortality is greater than in multiparæ. The postural treatment for this complication was first suggested by THOMAS. The woman being placed in the genu-pectoral position, thus letting the cord slip into the fundus uteri by force of gravity; but this position is a very arduous one for a parturient woman for any length of time. Over a year ago the author suggested in an article that theoretically the Trendelenburg position ought to accomplish the same result with far less discomfort to the patient. Since then he has tested this method in three cases, saving all the children.

In the first case a transverse presentation was present in a woman weighing 250 lb. The membranes were unruptured, and after doing an external version the left foot presented with 6 in. of pulsating cord. Chloroform was given, a common cane-chair placed upside down at the foot of the bed and covered with a pillow and sheet, and the woman placed in the Trendelenburg posture. After pushing the cord into the uterine cavity, which was done with ease, and placing a sponge to prevent its prolapsing again, the membranes were ruptured and the child delivered with difficulty. After the umbilicus was past the cervix, the chair was removed and the delivery accomplished in the usual way. The child was cyanotic, but was soon restored.

The second case was one in which the hand presented, and above this the face with the chin posterior, and 12 in. of prolapsed cord was in the bed. There was complete absence of labor pains. The pulsations of the cord were 150. The foot-piece of the bed, being 18 in. above its plane, was utilized to form an inclined plane with a washboard and the woman placed in the Trendelenburg posture. The hand and face were pushed to one side, after pushing back the cord, and a foot brought down and the child delivered. The child was markedly asphyxiated, but soon revived.

A third successful case is also reported. In addition to the greater ease of restoring the cord the author was impressed with the facility with which he was able to perform version in this position. He sums up his impressions as follows: (1) The advantage of the elevated hip position, combined with extension of the limbs in increasing somewhat the antero-posterior diameter of the pelvis. (2) The ease with which a prolapsed cord can be replaced and kept back with the aid of a fairly large piece of boiled sponge pushed between the presenting part and the pelvic wall (as suggested by RENSCHAW). (3) The ease with which the presenting head can be pushed up and a leg brought down. (4) The short time in which a version can be done.

Against Vivisection in Schools.—Senator Davis has introduced a bill in the New York Senate prohibiting teachers or other persons employed in public schools from practicing vivisection in the presence of the pupils, and prohibiting the exhibition of vivisectioned animals in the schools.

SOCIETY MEETINGS

NEW YORK ACADEMY OF MEDICINE

SECTION ON OPHTHALMOLOGY AND OTOTOLOGY

January 20, 1896

JOSEPH A. ANDREWS, M.D., Chairman

Cholesterin Crystals Following Extraction

Dr. D. WEBSTER: One of the patients I desire to present is a married woman, 57 years of age, upon whom I performed simple extraction on December 6, 1895. She was discharged after 18 days, and was readmitted 3 days later for "needling." A thin membrane in the pupil was cut with Knapp's knife-needle, and on doing so the anterior chamber became at once filled with a number of minute white, shiny particles. I supposed it to be due to fatty degeneration of the vitreous. Her vision is 20-40 with a plus 10D. combined with a plus 2.50D. cylinder, axis 15. She reads Jaeger No. 1 with a proper glass.

Injury to the Eye

The second case is a little boy, six years of age, sent to me by Dr. EDWARD L. BULL, of Jersey City. On November 17 this boy tripped and fell, and in doing so struck the right upper lid with a slate-pencil which was in his hand at the time. When taken home he regained consciousness and vomited. There was complete ptosis, and ophthalmoplegia, and he *apparently* counted fingers; but the correctness of this latter statement is doubtful, for a few days later the boy was blind. Examination showed no changes in the optic disc, and the media were perfectly clear. The only wound found was a small puncture at the inner part of the superior margin of the orbit. I suspect that a portion of the slate-pencil was broken off within the orbit, but it is possible that his symptoms may have been due to fracture within the orbit, or simply to concussion. Within the past week he has developed a neuro-paralytic keratitis, apparently due to some injury to the lenticular ganglion, and there is now some optic atrophy.

Dr. EDWARD L. BULL: I saw this boy about one hour and a half after the injury, at which time he was rather stupid and was vomiting. There had been no pain and no congestion about the eye. I found no foreign body on palpation of the orbit. We were unable to find the fragments of slate-pencil, so it is impossible to say what became of them. It is possible that the good eye was not completely covered at the time I tested his ability to count fingers.

Leucoma Adhærens

Dr. M. L. FOSTER: The first case I desire to present is a man 21 years of age who, ten years ago, wounded the left eyeball with a penknife. A leucoma adhærens resulted. On account of the danger and difficulty usually experienced in an attempt to separate such adhesions, I determined to try a method which, so far as I know, has never before been employed. I introduced a sharply curved knife-needle, the one known as Weeks's, at the side of the cornea opposite the adhesion, passed it across the anterior chamber, placed the curve of the knife behind and about the adhesion, and divided it as with a sickle. The important point of this operation is the ease and safety with which it can be performed with this instrument. I wish to call attention to the way in which the iris stretched before the knife. It must have stretched nearly one-eighth of

an inch, although the edge of the knife was sharp and in good condition. This seemed to me to explain the reason of the difficulty usually experienced when the operation is attempted with a keratome or other straight-edged knife; the iris yields before the knife without being divided until an undesirable amount of traumatism is sometimes inflicted. The result in this case I consider perfect. There was no reaction; the pupil is round, the adhesion is entirely gone, and the vision has been brought from $\frac{2}{88}$ + to $\frac{2}{88}$.

Probable Foreign Body Beneath the Retina

The other case is one which came under observation two weeks ago. This boy presents on the nasal side of the fundus a tumor, distinctly green in color, protruding into the vitreous. The apex can be seen with a plus 8 diopter glass, the base with a plus 5. On the upper side alone can the retinal vessels be seen to pass up over the surface of the tumor, but here they are plainly evident; so it appears to me to be spherical and to hang forward and downward. It forms the central point of a considerable amount of choroiditis, which is accompanied by large patches of choroidal atrophy. There is also an opacity in the lens. The boy has never had any trouble with his eye other than refractive; he came to me for glasses, and this condition was noticed in the routine examination. There is absolute denial on the part of the boy and of his family that the eye was ever injured, but it is quite possible for a foreign body to have entered the eye without his knowledge. I have never seen exactly this condition before, and I therefore present this case for diagnosis.

Dr. H. KNAPP: I think the supposed tumor is a bird-shot. The mass is certainly spherical and is blackish. There is considerable choroidal atrophy, just as is seen when a piece of steel is imbedded in the eye. It is probable that being smooth and round it did not at first adhere to the background of the eye, as a sharp body would have done. Being aseptic, as grains of shot commonly are, its movements to and fro have caused extensive choroidal atrophy, but no suppuration. Though no injury is known, the track of the projectile is visible—viz., a slight opacity of the cornea and a linear opacity running from in front backward from it through the lens. I recall a case in which I distinctly saw a chip of iron in the retina, and yet there was positively no history of the eye having been injured at any time.

Dr. SUTPHEN: About one year ago I brought a case here in which there was a rusty-looking iritis with suspected foreign body in the anterior chamber. I afterward made an iridectomy and removed a piece of steel from behind the iris. This man had no recollection of having ever received an injury to the eye.

A Case of Epidural Abscess Due to Acute Otitic Suppuration

Dr. M. TOEPLITZ: The aural affection in this patient began in the beginning of October, 1895, with pain in the right mastoid, which extended over the right side of the head to the vertex. Four weeks later a scanty otorrhea began, and was still present when I first saw him two weeks afterward. There was then pain only on extreme pressure over the right mastoid. There was extreme bulging of the upper and posterior wall of the external osseous, and granulation in the cartilaginous meatus. The temperature was normal. After the removal of the granulations and free incision into the bulging portion of the osseous meatus, from which no

pus was discharged, the patient was ordered to use antiseptic irrigations and the ice-bag. Two days later the headache, otalgia, and mastoid pain had almost entirely disappeared. Two days after this there were collateral edema and extreme pain, in spite of the continuance of the treatment. On the same day the mastoid was opened. The antrum was found free from pus. I then chiseled backward and inward and found a fistula in the inner plate of the mastoid, which passed into a cavity from which about an ounce of thick pus was evacuated. The fistula was enlarged, and then the dura mater was exposed and found to be pulsating normally. After this, recovery was rapid and uninterrupted. The opening was closed in five weeks, and at the present time there is normal hearing.

Treatment of Acute Purulent Otitis Media, with Mastoid and Intracranial Involvements

Dr. HERMANN KNAPP: I wish first to show a patient in connection with my paper. I have performed two operations on the mastoid in this woman. I had in the second operation to lay bare the lateral sinus for 2 ctm. Finding this normal, I entered the middle cranial fossa above the ear, exposed the dura mater, and found it likewise healthy. There was no reaction from either operation, and the wounds healed kindly and the cerebral symptoms disappeared after curetting the tip of the mastoid. Her hearing is now almost normal. I present this case to show that in doubtful cases such exploratory operations are legitimate, because of being practically harmless.

I desire in this paper to make only one point regarding the treatment of inflammation of the middle ear, and its extension toward and into the cranium. In a recent paper I drew, among others, the conclusion that *even if a patient did well and appeared to be cured, we should keep him under observation for weeks or months, for purulent otitis was a treacherous disease.* I reported at that time three cases which, after apparent convalescence, had had severe relapses. Two were cured by operation, and the third, whom I lost sight of, died from suppuration of the mastoid and perforation into the cranial cavity, causing meningitis. This condition I ascertained by post-mortem examination. To these I can add two recent cases

CASE I.—Acute Purulent Otitis Media, with Mastoid Involvement. Glandular Swelling, and Facial Paralysis; Operation; Complete Recovery.—The patient was a man, 37 years of age, having a good family history. He had been well up to September 22, 1895, when after a bath, he had sudden pain in the ear, lasting two days. Eleven days later there was a return of the pain, accompanied by purulent discharge from the right ear and tenderness of the mastoid on that side. The walls of the auditory canal did not bulge. Hearing was fair. The temperature was 100.5°. Under rest and ice the patient rapidly improved, and was discharged from the hospital four days later. A few days after this he began again to have severe pain in the mastoid, and the discharge became copious. He was again admitted to the hospital, and examination showed redness and swelling of the mastoid, and the walls of the canal were swollen. Three days later he was operated upon. The antrum was found empty, the cells below contained thin pus and some granulation tissue. A probe passed through the tip freely into the digastric fossa. The muscular insertions were cut away, and the whole anterior surface of the mastoid was removed. There was no pus whatever in the digastric fossa. The periosteum was stripped off in

search for a fistula. The inflammation appeared to be around the facial nerve, where it passes through the cancellous tissue, and this accounted for the facial paralysis present. While cleansing out the antrum with a sharp spoon, I injured the lateral sinus. The hemorrhage was easily stopped by plugging with corrosive-sublimate gauze. There was no reaction from the operation, but the swelling spread farther down the neck. Four days later it was noted that there was no discharge, and, two weeks after this, the patient was discharged with still a little facial paralysis, but no otorrhea.

This patient had at first an ordinary attack of purulent otitis media. The facial paralysis was probably caused by perforation of Fontana's canal and pressure of the pus upon the nerve in the lowest sub-tympanic part of the canal. This part is surrounded by numerous air spaces, in which the suppurative inflammation in this case was particularly marked. The styloid foramen, through which the nerve passes, is near the lower surface of the mastoid. A probe passed readily from the mastoid cavity into the digastric fossa. It is not likely that the soft parts, though much swollen, exerted sufficient pressure to paralyze the nerve.

CASE II.—Acute Purulent Otitis Media and Mastoiditis, with Marked Cerebral Symptoms. Paracentesis of the Drum Membrane, Opening of the Whole Mastoid, with Exposure of the Lateral Sinus and the Dura Mater at the Bottom of the Middle Cranial Fossa; Recovery.—This case was remarkable owing to an extensive exploratory operation having been done without any reaction. The patient, a woman, 49 years of age, began last November to have earache for the first time in her life. Paracentesis was performed. A few weeks later she was suffering a good deal, the discharge had stopped, and the upper and posterior parts of the canal were red and swollen, and the posterior edge of the mastoid process was tender. Quinine, rest, warm ear-douches, and cold to the mastoid were ordered. Her general and local condition improved, and I thought that the inflammation had subsided in the antrum, but was still active in the posterior part of the mastoid. She entered the hospital and was operated upon on December 9, 1895. A slightly curved incision was made behind the auricle, and an opening chiseled into the antrum. The antrum and upper cells were free from pus and granulation tissue. An incision was then made directly backward, the bone chiseled, and pus and soft tissue were removed with a sharp spoon. She improved for about two weeks, and then became stupid and very feeble. I believed that the pus had extended into the cranial cavity. Sinus thrombosis was excluded on account of the absence of the characteristic temperature curve. Under ether the wound was cleared of granulation tissue, and the sigmoid sinus laid bare for 2 ctm. The wound was then enlarged upward and forward until the dura mater at the base of the middle cranial fossa had been exposed. The dura mater appeared normal, and no pus was found. No further operative interference was thought advisable at this time. For a few days the patient felt better, but then the symptoms returned. The bone at the tip, which formerly was found firm, was now brittle. It was curetted, whereupon the patient speedily recovered. She was discharged "cured," January 10, 1896. The case illustrates the gradual progress of the disease from one part of the middle ear to the other. The operation probably prevented the entrance into the posterior cranial fossa.

We may abstract from this case the following rule: *As long as there are protracted and grave*

symptoms of middle-ear disease, we must make exploratory operations until the cause is uncovered.

Dr. GORHAM BACON: About a year ago I had a very similar case to the one described by Dr. TOEPLITZ. He had had severe pain in the mastoid for about three days. On incision and chiseling I found the cells and antrum full of pus. The lateral sinus was found to be normal. It was noticed that on coughing, the antrum filled up again with pus. The bone above was then removed, and a large quantity of fetid pus removed from the middle cranial fossa. These cases show the great importance of carefully examining not only the roof of the tympanic cavity, but also the wall of the lateral sinus and other parts. Regarding the use of the Leiter coil in the treatment of mastoid cases in the paper of Dr. KNAPP, I would say that I have become rather skeptical as to the benefit derived from it when these cases are not seen quite early; *i.e.*, after the first week or two, I do not think it is of much benefit. I understood Dr. KNAPP to say that in one of the cases that he reported the dura was exposed and found pulsating, otherwise normal. In a recent case of large temporo-sphenoidal abscess there was very marked pulsation of the dura, yet at least one ounce and a half of pus was evacuated. In a case of cerebellar abscess which I recently reported in the August number of the *American Journal of the Medical Sciences*, I was able to examine at autopsy the brain, in which I had made previously several punctures. I found that these punctures had done no injury. I am glad to hear that Dr. KNAPP has had a similar experience.

Dr. E. B. DENCH: In regard to the case reported by Dr. TOEPLITZ, I would say that two similar cases have occurred in my own hospital practice. One of these, a child less than one year old, presented the post-auricular edema, tenderness on pressure behind the ear, and the other characteristic symptoms of an inflammation of the mastoid. Upon incision and removal of the mastoid cortex covering the antrum, a small amount of pus was found in this cavity, the walls of the antrum were softened, and the cautious use of the curette exposed the meninges. As soon as the cranial cavity was opened a considerable quantity of pus escaped. The subsequent history of the case was uneventful, and the child made a complete recovery. Quite recently I have seen a similar condition in an adult. The entire mastoid process was carious, and the lateral sinus was exposed for a distance of about three-fourths of an inch, thus converting a simple mastoid empyema into an epidural abscess. In this case all the symptoms were wanting with the exception of mastoid tenderness and a temperature curve which is rather characteristic of infection through one of the larger venous channels; that is, sudden elevations of temperature, followed by a spontaneous fall to normal.

In regard to Dr. KNAPP's paper. In the first place, I agree with Dr. BACON in regard to the use of the ice coil. I believe that it is useless in the later stages of mastoid inflammation, and that even when the case is seen early the local application of cold should never be continued longer than forty-eight hours. In most cases I remove the ice coil at the end of 36 hours, and it has been my experience that if local tenderness persists after the removal of the coil at the end of this time operative interference must be instituted in order to relieve the patient. If the coil is used for a longer time it is true that the tenderness may completely disappear, but it is equally true that it will recur at a later period. In other words, its prolonged use simply masks the symptoms and protracts the disease.

A few weeks ago a patient presented at my clinic who demonstrated in a very characteristic manner the insidious character of those cases of mastoiditis which involve the pneumatic cells in the lower portion of the process, and in which spontaneous perforation into the digastric fossa occurs. This patient was seen for the first time about three weeks after the beginning of an acute purulent otitis. When he first came under observation there was no pain, the temperature was normal, and he complained only of a discharge from the ear and of impairment of hearing. He also stated that he had had no pain, except at the time of the acute otitis. Upon examination the mastoid process was found to be tender, the posterosuperior wall of the canal was swollen so that the deeper portion of the meatus was much narrowed. The swollen tissues were incised and the patient was put to bed, and the ice coil applied for 36 hours. During this period the temperature was taken every two hours, and the symptoms were closely observed. There was absolutely no pain, no elevation of temperature, and no other evidence of any suppurative process. Upon the removal of the coil the local tenderness persisted, and immediate operation was advised. At the operation the entire mastoid process was found to be destroyed, and there was a large perforation through the internal surface of the mastoid into the digastric fossa. The recovery in this case was uneventful. Within the last three weeks three other similar cases have been observed.

In regard to the advisability of exploring the cranial cavity in doubtful cases I agree with Dr. KNAPP that such a procedure is indicated whenever the symptoms point to intracranial involvement dependent upon either a recent aural inflammation or in any case where there has been a suppurative otitis at some earlier period of life, and where the aural supuration has caused no recent symptoms.

Not long ago a patient came under my observation with the following history: About twenty years ago he had a bilateral suppurative otitis following typhoid fever. The right ear had not discharged for many years; but the discharge had continued upon the left side until two years ago, when it almost entirely disappeared. About a month before I saw him he suddenly became giddy while at work, and this giddiness persisted for about ten days, after which it gradually diminished. The slight discharge from the left ear became still more scanty about this period. Very soon after the attack of vertigo, he began to have pain in the left ear extending up into the left temporal region. Through the kindness of Dr. J. ARTHUR BOOTH, the patient came under my observation. At that time the giddiness had almost entirely disappeared; there was a slight purulent discharge from the left ear, but the drainage of the tympanum seemed to be perfect, as a probe could be passed through a large perforation in the upper portion of the membrana tympani into the aditus ad antrum. When I first saw the patient there was excessive tenderness over the supraorbital, infraorbital, and inframaxillary regions, the tender point corresponding to the foramina, through which the three branches of the trigeminal nerve make their exit. There was also an exceedingly tender point in the left temporal region midway between the external angular process of the frontal bone and the superior border of the external auditory meatus. The patient complained of considerable frontal headache, and an examination of the nasal cavities gave evidence of ethmoiditis. Under aconitia the trigeminal tenderness disappeared, but the tenderness in the left temporal region persisted. Drainage of

the ethmoidal cells also gave no relief, and the patient seemed to be growing steadily weaker, while the pain was becoming daily more severe. He was then admitted to the hospital and observed closely. The temperature had been previously taken, and had been normal. When the record was made at more frequent intervals, however, it was found that each day the temperature rose to 103° F. or 104° F., falling spontaneously to normal. Acting upon Dr. BOOTH's suggestion I operated about ten days ago, and exposed the roof of the tympanum by the removal of a portion of the temporal bone immediately above the external auditory meatus. In the anterior portion of the opening the meninges were normal, but as the opening was enlarged backward, the dura appeared distinctly cloudy, and upon the introduction of a probe along the roof of the tympanum between the dura and the bone, the tympanic roof was found to be slightly roughened, while the dura was adherent in this region, and as it was separated a considerable quantity of turbid serum was evacuated. An incision was then made in the dura and the brain substance punctured in various directions with the aspirating-needle in the hope of finding some local purulent focus. No abscess was found. On account of the fluctuations in temperature I next exposed the lateral sinus, considering it possible that this might have been infected through the suppurative process within the tympanum. The sinus was perfectly healthy. The wound in the dura was closed with interrupted catgut sutures, the epidural space over the tympanic roof was packed with iodoform gauze, and an antiseptic dressing was applied over the entire wound. Since the operation the patient has had no pain, the vertigo has disappeared, and the temperature has never risen above 100° F., excepting immediately after the operation, when it reached 101° F. It is now about normal. This history seems to show that the case was one of infective meningitis, the site of infection being the dural area immediately over the tympanic roof. As nature had not shut off the infected portion, it was only a question of time when the meningitis would have become general had it not been checked by operation. The case also proves clearly how little we have to fear from extensive operative interference in these cases, and as surgical measures offer the only hope of safety to the patient there can be no question as to their propriety.

Dr. LEDERMAN: I have seen three cases of brain abscess during the last few months. One was a case coming into the hospital in delirium and with a high temperature. Quite an extensive mastoid operation was done at once, but very little pus was found. Although there was a temporary improvement, the patient developed urgent symptoms about seven days later and died. At the autopsy an extensive abscess of the temporal lobe was found. The lateral sinus was not involved. This case taught me that it was unwise to stop short of finding sufficient pus to account for the symptoms. In a second case, seen in private practice, the symptoms of mastoid disease were not marked. At the operation only a little pus was found, and subsequently I trephined over the canal, and, on the insertion of a hypodermic needle, pus was discovered. An incision was then made in the dura, and 1½ oz. of pus was removed.

Dr. J. ARTHUR BOOTH: Dr. KNAPP has given us some very interesting facts, which emphasize the importance of operative interference in patients with cerebral symptoms following otitis. The patient I saw with Dr. DENCH was a man, 52 years

of age, who had an attack of typhoid fever 19 years ago, and ever since that illness had more or less chronic ear trouble, with persistent discharge from the left ear, until two years ago, when this stopped. Four weeks ago he was seized with a sudden attack of vertigo, which persisted and prevented him from working. There then developed severe and constant pain in the distribution of the left trigeminal nerve. He was admitted to the New York Eye and Ear Infirmary, and a few hours after his admission developed a temperature running between 101° and 104°. It was decided that an exploratory operation was indicated, and this was done by Dr. DENCH, who has just given you the results.

Another case I saw recently with Dr. NICHOLS: A girl, 11 years old, had been troubled with bilateral chronic otitis media for some time, following an attack of measles. Latterly she had complained of general headache, and within a few days had become drowsy and stupid. A slight facial paresis on the left side appeared, with an increase in the stupor. There was no rise of temperature, but the pulse was very slow, varying between fifty and sixty beats to the minute. Dr. NICHOLS trephined just above the ridge of the right temporal bone, and on passing a probe downward and forward a large amount of foul-smelling pus appeared. It is now six weeks since the operation. The facial paresis has disappeared, and the patient is entirely well.

Dr. TOEPLITZ: I reported my case simply on account of its being an epidural abscess, uncomplicated by mastoid disease or intracranial disease. The only two symptoms that led me to operation were swelling over the mastoid and swelling in the internal meatus, which is diagnostic of deep-seated disease. The case was remarkable from the absence of fever and of symptoms pointing to brain complication.

SECTION ON GENERAL MEDICINE

January 21, 1896

WILLIAM HENRY PORTER, M.D., Chairman

The Theory and Treatment of Rheumatism

Dr. LOUIS FAUGERES BISHOP: In the advance of modern pathology, rheumatism has been left behind. In the treatment a curious condition of professional opinion exists. Many of those whose experience antedates the introduction of the salicylates for the treatment of rheumatism are firm believers in the salicylates, while some of the younger men believe that the salicylates act by relieving pain, but do not shorten the duration of the disease or prevent cardiac complications. The cause of rheumatism in all its forms is extremely obscure. Exposure to cold is often the beginning, but there must be a predisposing cause. Heredity as a factor in the causation of rheumatism receives daily confirmation, particularly where we watch a family for many years. GARROD and some other observers have studied the blood in rheumatism in regard to the corpuscles, but their conclusions do not seem to be of much value. The loss of red blood-corpuscles is rapid in acute rheumatism, but their return is also rapid. Some pathologists are impressed with the relation between rheumatism and malaria. PEL of Amsterdam, shows from the hospital records that in those years in which there was the smallest number of malarial diseases rheumatism was the greatest, and *vice versa*. Long ago it was claimed that excess of lactic acid in the system was the cause of rheumatism. Lactic acid is the result of destruc-

tion of tissue during exercise. If something interferes with elimination of carbonic acid from the lungs, an accumulation may happen, and this condition may lead to an acute attack of rheumatism. Lactic acid is eliminated from the lungs after being decomposed into carbonic acid and water. The acid reaction of the secretions is easily determined, but the difficulty of determining the special organic element to which this acid reaction is due has led to varying results. Most observers, however, consider lactic acid to be the cause of the acidity. About thirty-five years ago B. W. RICHARDSON conducted his now classical experiments. One of the most noted of these is the one in which he produced an artificial endocarditis in animals by the injection of lactic acid. WILLIAM A. HAIG claims that rheumatism, like gout, is due to an excess of uric acid precipitated from the blood; but he is admittedly an enthusiast on the subject of uric acid. The fact that uric acid is not in the blood of rheumatic subjects is explained by supposing that the alkalinity of the blood has been diminished, and that therefore the uric acid has been attracted to the tissues. The prevailing theories of rheumatism show a persistent attempt to make at least acute rheumatism a bacterial disease, though others still are strong adherents to the lactic-acid theory. The association of acute rheumatism with tonsillitis, the analogy between acute articular rheumatism and the joint conditions often observed in septic conditions, and the general appearance of the patient all point to an infectious disease. On the other hand, the rarity of suppuration in rheumatic joints, the imperceptible gradations between acute and chronic rheumatism, the absence of a specific bacillus, and the absence of contagion all point to a miasmatic cause. I have been rather surprised to find that the miasmatic theory seems to be the most tenable. The long and sluggish course of the chronic form of rheumatism, its fearful severity in some of the acute attacks, form a close analogy to the action of the plasmodium malarie. It is easy to suppose that the lactic acid is the product of the activity of the miasmatic organism, or that it is the result of the increased metamorphosis of muscular tissue due to the disease. The fact that this organism has not yet been found is no more surprising than that a similar organism, which is probably the cause of cancer, has also eluded detection. Gout bears the marks of a nutrition disorder, while rheumatism bears indications of its infectious nature. Under the name rheumatism probably several different pathological entities are included, yet it is difficult at the present time to sharply define these. In a case recently under my care, the patient had a distinct rheumatic family history; he was subject to typical attacks of articular rheumatism, and in addition he had a typical gonorrheal rheumatism affecting the feet, and involving the bursa under the tendo Achillis. Acute articular rheumatism is not numerically very common; it is the cases of subacute rheumatism that so frequently apply for treatment.

Muscular rheumatism has developed much discussion recently regarding its nature. Differences of opinion in regard to its real nature are often due to real differences in the individual cases. It has been looked upon by some as a neuralgia, by others as involving the fibrous structures of the muscles. The latter is probably the true explanation. All cases of acute rheumatism should be treated as if the heart were already involved. In acute rheumatism the heart acts very much like a joint, with this great difference: that it cannot be put at rest like a joint. I think that by the alkaline treatment we

are able to avert rheumatic endocarditis. It is not an ulcerative endocarditis. The theory that it is due to the presence in the blood of a poison which acts directly upon the valves is not tenable. A comparatively safe rule is to keep a rheumatic patient in bed for one week after the pain has disappeared from the joints, and to insist upon the wearing of woolen clothing. Pericarditis is not as frequent as endocarditis, but is more frequent with rheumatism than with any other disease. Pleurisy is not very commonly associated with rheumatism; but when we find a double pleurisy with endocarditis and pericarditis, we are justified in assuming that the cause is rheumatism.

The diagnosis of endocarditis is not a simple matter. There may be cardiac murmurs produced, during the course of a rheumatism, by other causes than endocarditis. Pericarditis is more easily diagnosed. The cardiac complication during an attack of rheumatism requires but little treatment; it is weeks or months afterward that the treatment for the cardiac affection is demanded. Cerebral complications are seen in a certain proportion of cases of rheumatism. When it occurs late, it is possible that it is the result, not of the rheumatism, but of the salicylate treatment.

The miasmatic theory of rheumatism gives a definite and hopeful hypothesis for treatment. For rheumatism we have no antidote as good as quinine for malaria; but salicylic acid approaches in kind, if not in degree, the action of quinine in malaria. Either salicin or oil of wintergreen should be given in sufficient quantities to relieve the pain and reduce the temperature. It seems to have the power of modifying the action of the rheumatic poison. Failures usually come from not giving enough of the drug. Sometimes this is because the patients cannot tolerate it in sufficiently large doses. Many careful observers believe that the salicylates do not protect the heart, while alkalies are quite uniformly believed to have such an effect. In using the alkaline treatment, the mistake is often made of ordering too definite a quantity. Sodium bicarbonate should be given in dram doses as often as practicable until the urine become alkaline. Twenty grains of salicin every two hours until the pain is relieved, and then continue 20 grn. three times a day, would be the proper directions for an average case. We should avoid overtaxing the digestion. Carbohydrates should be limited in quantity, and proteins should be of the most digestible kind. Milk is often a valuable part of the diet. The absence of any degree of fever is a strong argument against any active inflammatory condition, but this should not prevent us from giving salicin a fair trial. We should give hydrotherapy and massage an important place in the treatment of rheumatism whenever this is possible. Where there is stiffness of joints, it should be remembered that much relief has been afforded by passive motion, massage, and sometimes by breaking up of adhesions. Cod-liver oil is very useful in chronic rheumatism.

Dr. W. H. DRAPER: I think that most of us must have come to the conclusion, from experience, that it would be difficult to bring before this section a more complicated subject than that of rheumatism. Dr. BISHOP has well stated the theories that have been maintained as to the etiology of different forms of rheumatism; and though the subject is still involved in considerable obscurity, it would seem that the causes of rheumatic lesions, as they have been described to us this evening, may be arranged under three heads, viz: (1) The neuropathic causes; (2) the humoral causes; and (3) the bacterial causes.

The neuropathic causes we recognize in Charcot's joint lesion in tabes, in the arthritic lesions of cerebrospinal meningitis, and in rheumatoid arthritis. I think there can be no question as to the applicability of this theory to the arthritic lesions I have mentioned. We find a large number of rheumatisms included under what may be called, even at the present day, as they were called long ages ago—the humoral causes of rheumatism; but the humoral causes of rheumatism are now spoken of chiefly in the language of the pathological chemist. Undoubtedly a very large number of joint lesions are due to defective metabolism of food, and this class of rheumatic affections is generally recognized under the term of gout. The bacterial causes of rheumatism have been described in the paper under the term "miasmatic causes." There is a substantial foundation for this theory in the arthritic lesions that occur in septic conditions, in gonorrheal rheumatism, in the tubercular lesions of joints, in some of the essential fevers, and, in the view of many modern pathologists, in the case of so-called "rheumatic fever," or acute articular rheumatism.

I shall confine my remarks chiefly to the arthritic disease known as acute rheumatic arthritis—the common rheumatic fever. What is the evidence that acute rheumatic fever is a bacterial disease—a germ disease? I think the first striking fact in the history of acute inflammatory rheumatism is that it presents the quality, like other germ diseases, of epidemicity. Epidemics of acute articular rheumatism have been described for a long period, though some doubt has been thrown upon the true rheumatic nature of some of them. But there can be no question that rheumatic fever, while not perhaps very often seen on a large scale as an epidemic, does present some of the features of epidemic disease. One of these is the fact that rheumatic fever is a disease apparently affected by the season. It is much more frequent in hospitals in some years and in some seasons than in others. Statistics show that the fewest cases of acute rheumatism occur in the summer, and the greatest number in the winter and in the spring. This fact cannot be explained by either of the other theories as to the etiology of rheumatism. Gout, which is undoubtedly a purely humoral disease, does not prevail more at one season than at another. The prevalence of acute articular rheumatism seems also to be associated with those changes in the soil due to the rainfall. It is well known that typhoid fever, erysipelas, and perhaps pneumonia prevail more extensively after a prolonged period of drought following a rainfall—in other words, after the upper layer of soil has become dried and fit for the development of all sorts of saprophytes.

What are the clinical analogies of acute articular rheumatism to other infectious fevers? The onset of acute inflammatory rheumatism is very like the onset of other infectious fevers; it begins with malaise, slight fever, chill, often with sore throat, and then on the second or third day the joint lesion appears and progresses somewhat irregularly. This peculiar and characteristic progress of rheumatism was much more commonly observed before the general adoption of the salicylate treatment. I think also that the course of the fever and the occasional occurrence of hyperpyrexia in acute inflammatory rheumatism are analogous to what we observe in infectious diseases. Acute rheumatism, too, like the other infectious diseases, is often characterized by a multiplicity of lesions: tegumentary lesions, such as congestions of mucous membranes, sore throat, erythematous and even purpurul lesions of

the skin. It is also complicated, and not infrequently, with visceral lesions, such as pericarditis, endocarditis, pleurisy, and pneumonia. The anemia, also, which follows acute rheumatic fever presents, as it seems to me, another point of resemblance to the infectious fevers, all of which produce a more or less rapid and extreme anemia. It appears to me that the lactic-acid theory is not a sufficient one, inasmuch as lactic acid appears in excess after the disease has made some progress; it would seem rather to be a consequence than a cause of the disease. We know that the alkaline treatment, which was based upon the acid theory of rheumatism, has been practically abandoned. It was proved by GULL and SUTTON 35 years ago that the results of the alkaline treatment were inferior to those of the expectant mint-water treatment.

The well-known reply of an eminent physician, when asked what was good for rheumatism, still expresses pretty nearly, perhaps, the truth in regard to the duration of a rheumatic fever under any treatment. "Six weeks" certainly include the period during which the liability to relapse is very common. In respect to duration, therefore, rheumatic fever presents a striking analogy to some other infectious fevers.

The success of the treatment of rheumatism by the salicyl compounds has been claimed to be an argument in favor of its dependence upon a specific infection. If it simply allayed the pain its effect might be explained by its anesthetic property, but I think it will be generally admitted that it does more than this: it allays the fever and reduces the inflammatory lesions. It acts with much the same certainty that quinine does in malarial fever, or that mercury and iodide of potassium do in syphilis.

It may be asked, How are we to explain subacute cases of rheumatism, mild cases with little or no fever, where only two or three joints, or perhaps even one joint is involved, with a tendency to repetition from time to time? Are these cases mild degrees of the same infection which produces the severe forms of rheumatic fever, or are they due to some of the other causes to which rheumatism is ascribed? The discussion of this question would lead us too far afield. It is sufficient to say that rheumatism does not present any greater variety in respect to the degrees of its severity than the other recognized infectious fevers—varieties that may be explained by the varying intensity of the infection or the natural or accidental variations in the resisting power of individual patients.

In regard to the so-called cases of rheumatic gout, or gouty rheumatism, it seems to me difficult to differentiate such cases as examples of the combination of two distinct diseases such as gout and rheumatism undoubtedly are. Gouty persons are often rheumatic, but in my experience there are many rheumatic persons who never have gout.

Lithemia is the essential cause of true gouty inflammation of the joints, but there are many cases of what we call rheumatic arthritis in which there is no evidence of lithemia. The vulnerability of the joints in gouty persons is well known, and so they are rendered especially liable to be affected by many of the causes of rheumatic arthritis.

There is another large class of cases that are styled "chronic rheumatism" or "deforming rheumatism," often seen in old men and women who have worked much with their hands. In the causation of these cases I believe that traumatism has played a large part, and the deformity is aggravated by the sclerotic changes which are manifested in the senile period of life. In conclusion, I would repeat

that the subject of this evening's discussion is too large and too complex to be considered in all its bearings. I have simply aimed to dispel some of the confusion that now invests it by attempting to set forth, in a general way, the classification of the causes of articular diseases, comprehended under the name rheumatism, which seems justified by the present state of pathological knowledge, and especially to direct attention to the germ-infection theory as applicable to the genesis of rheumatic fever.

Dr. BEVERLEY ROBINSON: My remarks on this subject are derived purely from my personal experience. I was especially interested in Dr. DRAPER's remarks on the hybrid forms of rheumatism and gout. We know that the urine of gouty patients in the intervals of the attacks is often clear and deposits uric acid freely; on the other hand, we know that some individuals for long periods of time have scanty and concentrated urine containing abundant pinkish deposits of urates, and yet the individuals of this latter class often present clinical symptoms which appear to be more of a gouty than a rheumatic nature. This view is confirmed by the behavior of these symptoms to treatment. I recall one individual who for a number of years passed large quantities of clear urine containing at times a small quantity of albumin with granular and hyaline casts. That lady now passes scanty and concentrated urine containing an abundance of urates. Such a case I should consider to be an example of the hybrid class. The last speaker has presented most convincing arguments in favor of the miasmatic theory of rheumatism. The lactic-acid theory is not a sufficient explanation of the etiology of rheumatism, for it is really one of the epiphenomena of rheumatism. We must recognize, however, the existence of an excess of lactic acid, and therefore I believe it is desirable to use alkalis in conjunction with other treatment. I do not think we get the best results from the salicylates alone. I do not believe it is good practice to give such large doses of salicin or salicylic acid as are recommended by some authors. I am sure that where I have done this I have unnecessarily depressed my patients without any corresponding benefit. It seems to me that ten or fifteen grains of salicin every two or three hours is sufficiently liberal dosage; but the best therapeutic results, even in pure rheumatic cases, can only be obtained, in my opinion, by adding a certain proportion of colchicum. The combination of chloride of ammonium with the acetate of potash I have used repeatedly in doses of ten to fifteen grains of each, every two hours, in the treatment of acute articular rheumatism, with the happiest effect; and I believe there is a rational basis for this treatment. The chloride of ammonium seems to be, in a certain sense, a stimulant; it is certainly one of the best hepatic stimulants, and it is a well-known antineuralgic. This combination was recommended to me by another physician, and I have found it exceedingly valuable.

Regarding the treatment of the troublesome subacute cases, I would say that we must often ask the aid of a surgeon. Great benefit is often derived from the use of plaster-of-paris or of some form of splint. In some cases I have observed great relief from massage, but in many others I have been disappointed with it. I think among the health resorts in this country suitable for rheumatic patients, probably one of the best are the Hot Springs of Virginia. I cannot say, of course, how much of this benefit is due to the water of the springs, and how much to the change of habits of life. In Europe, the sulphur springs of Aix, in France, and of Wiesbaden, in Ger-

many, are among the best for subacute rheumatism.

Dr. ROBERT W. TAYLOR: I have looked upon the lactic-acid theory of rheumatism as being fallacious, and have regarded this secretion one of the results of the disease. The microbic theory seems to throw the most light upon this subject, which after all can only be studied by analogy. There are certain definite facts about gonorrheal rheumatism, and the parallelism between acute articular rheumatism and gonorrheal rheumatism is very striking. There is not in gonorrheal rheumatism a jumping about from one joint to another, it is true; but the arthritic symptoms are very similar. The older books used to state that there were no heart affections associated with gonorrheal rheumatism, yet we know now that there are heart complications of unusual severity observed in connection with this disease. In the chronic form of rheumatism we observe eye affections; the same is true of gonorrheal rheumatism. In both varieties of rheumatism purpura is often observed. I have seen at least six cases in which the symptom-complex was that of acute rheumatism occurring in the exanthematous stage of syphilis, and once associated with very slight heart complication. Gonorrheal rheumatism is definitely known to be of microbic origin. The gonococcus has been found in the arthritic lesions, and WELCH, of Baltimore, has found the gonococcus in the blood of patients suffering from this affection. It might be urged that in gonorrheal rheumatism there is often pus in the joints, and never in the acute form. This is true, but it must be remembered that the gonococcus is the "sapper and miner" of the tissues for the pyogenic microbes. May it not be possible that the bacteria normally found in the intestinal canal may take on a pathogenic action? The history of rheumatism is often that of successive poisonings. I think that we often overlook the fact that many slight local rheumatisms affecting the muscles, joints, tendons, and fasciæ are really due to infections from an uncured urethritis. I think there is already very strong analogical evidence as to the microbic origin of syphilis, although Lustgarten's bacillus has not been accepted as the specific microbe of this disease.

Dr. WILLIAM H. THOMSON: Had it not been for what happened in 1880 the medical profession might have gone on indefinitely discussing the various theories regarding tuberculosis, based upon the pathological anatomy and the clinical study of the disease. But the tubercle bacillus gave definiteness to our discussions. Until experimental medicine comes to our assistance we cannot but feel that we are only theorizing about rheumatism. I am not at all sure that it will be demonstrated that rheumatism is due to a micro-organism, or whether it may not be proved to be due to a leucomaine in the same way that gout is due to a leucomaine. Until we get this experimental proof we must reason by exclusion. In the first place, rheumatism is not gout, and never will be; there has never been a case of rheumatic gout any more than there has been a Christian Mohammedan. Rheumatism is emphatically a disease of childhood and early adult life, and the poison of rheumatism in early life evidently produces more disastrous lesions than in adults. The most serious cardiac affections may develop in children with the slightest articular manifestations, or indeed there may be no articular manifestations whatever, the disease expending itself entirely upon the nervous system and producing chorea. Again, a first attack of articular rheumatism is quite uncommon after the age of thirty; it is still more uncommon after forty, and is almost unknown after that time. On the other hand, a true gouty arthritis is not likely to develop

before the age of 30. Moreover, gout is usually mono-arthritic at the first attack, and for a considerable time thereafter. On the other hand, rheumatism is very rarely mono-arthritic in its first attack; in more than half of the cases it is polyarthritic from the beginning, and this is particularly noticeable in the early attacks. I have always claimed that I could differentiate between rheumatism and gout by the character of the pulse. In gout the pulse is incompressible, indicating a difficulty in the circulation through the arterioles, due to the presence of an insoluble material in the blood. In rheumatism the pulse is markedly compressible, indicating the presence of a soluble poison. In addition to that, there is a great difference in the distribution of the lesions. Rheumatism, after passing from the joints, affects the heart, and has a special tendency to attack the serous membranes. Gout, when it attacks the heart, does so because the heart has been already worn out by general endarteritis produced by the gout. Gout gives what is called a "gouty bronchitis," and for this reason colchicum long ago achieved a reputation in senile bronchitis. It is very uncommon, however, to have a rheumatic bronchitis. The kidneys are particularly prone to degenerate in gout. These two diseases, therefore, are certainly not related to each other clinically. Pathologically the contrast is equally sharp. Gout invariably leaves its card when it attacks a joint; on the other hand, rheumatism creates a tremendous disturbance in the joints, yet it leaves little or no trace of the remarkable inflammation that it has excited. Gout presents about the joints certain very characteristic painful points, which are different from those observed in rheumatism.

I once resided in a country in which none of the residents had gout, but rheumatism was very common. The reason was that the people were Mohammedans and they considered it a mortal sin to drink wines. Now that lager beer has become such a popular drink there is no longer any aristocracy in gout; it is common everywhere—here as well as in England. Gout is the endemic disease of England, whereas it is comparatively rare in Scotland, where a great deal of whisky is consumed. While I have long been an advocate of the germ theory of disease, it does not seem at all clear that rheumatism is of germ origin. Rheumatism prevails wherever people are apt to be chilled while they are wet. That is the one constant and unvarying factor about rheumatism. Where the skin is not likely to be so chilled, rheumatism is conspicuous by its absence. In the desert of Arabia, notwithstanding the heat and dryness, articular rheumatism is particularly common. I found, on traveling there, what the explanation of this was. In the middle of the day the heat often rises to 140° F., but at night the radiation of heat is so rapid that by three o'clock in the morning one becomes thoroughly chilled through. It would seem, therefore, that an interference with the function of the skin by sudden chilling has much to do with the production of rheumatism. May this disturbance of the function of the skin not produce a leucomaine accounting for all the phenomena of rheumatism? It is certainly true that an animal can be very quickly killed by varnishing the skin. This theory would seem to be borne out by the cases of local rheumatism apparently produced by a local exposure to cold—a draft of cold air. For these reasons I do not feel that we can unconditionally accept the bacterial theory of rheumatism. On the other hand, the proportion of cases of tonsillitis preceding rheumatism is about 15 per cent., which, of course, points to a bacterial origin.

SECTION ON LARYNGOLOGY AND RHINOLOGY

January 22d, 1896

JAMES E. NEWCOMB, M.D., Chairman

Dr. L. L. MIAL demonstrated a new electrical saw and plane.

Dr. R. C. MYLES presented an instrument (made by MEYROWITZ) for operation upon the ethmoid, called the ethmoid clippers, which cuts at right angles to the shank, and is used chiefly for removing the floors of the ethmoid cells.

Presentation of Cases

Dr. WENDELL C. PHILLIPS said: I wrote to the secretary I would present two cases, but at the time I wrote I thought the meeting was to have been last Wednesday night. They were private patients from out of town, and I had detained them several days, and could keep them no longer. One case was a man with unusual mobility of the tongue. The man came to be treated for nasal obstruction, and remarked that his turbinated bones were swollen, for he could feel them with his tongue. On examination it was found that he could put his tongue into the posterior nares so it could be easily seen from the anterior nares.

Dr. C. C. RICE said: I have seen two cases where it was the custom to clean the posterior nares with the tongue, and Drs. I. H. HANCE and L. C. COFFIN reported that they had seen similar cases.

Dr. PHILLIPS had often seen patients who could clean the posterior nares with the tongue, but never before had seen one where the tongue could be seen through the anterior nares, and who could by this means discover the condition of the turbinated bones.

Dr. MEIERHOF presented a patient, a Russian, who came to him on account of hoarseness.

In the pharynx there was an area covered by a thick exudate which formed something of a grayish patch. I could find nothing in literature that seemed to correspond to the condition present. The exudate was between 5 and 7 mm. deep.

Dr. J. WRIGHT said: I do not know what is the matter, but it looks as though it might be an exudate from an inflammatory growth, which may be tubercular or syphilitic.

Empyema of Maxillary Sinus

Dr. T. J. HARRIS: I present this case as one belonging to a common type, yet interesting to the rhinologist. It is a case of empyema of the maxillary sinus, right side. The case was referred to me from the nervous department of the Manhattan Eye and Ear Hospital, where he had been treated for severe facial neuralgia. Although there was no sign of disease in the nose, flushings of the sinus through the natural passage brought away pus. As a confirmatory measure, an exploratory opening was made with a Hartner's trochar into the sinus, through the alveolus. The free flow of pus was established and the pain ceased. Curettement with a Myles curette, once repeated; this caused entire cessation of all discharge for six weeks, and the patient will be discharged. The duration of the disease was about a year.

Dr. MYLES said there were many cases in which there was a sac of pus beneath the periosteum, and in this instance it was probable Dr. HARRIS was fortunate enough to strike it. Curetting was often serviceable, but it required care, for the mucous membrane might be seriously injured.

Dr. WRIGHT: These cases are often peculiar and surprising. Not long ago a case came to me com-

plaining of acute attacks for several years. Finally the discharge persisted for six months and was very foul. He objected to the supra-alveolar operation, and after several ineffectual attempts to work out the antrum through the hiatus semi-lunaris, I told him it was a loss of time, and that I would not continue the treatment. He then went to Dr. SIMPSON, who gave him the same advice, but succeeded in making the opening of the ostium maxillare larger and washed the antrum out through the nose, but told him it would probably be of no avail. He then induced his family physician in the country to continue the treatment. In about three weeks he was cured.

Dr. O. B. DOUGLAS said: Last summer, while in the country, not having suitable instruments with me for the operation, I improvised an instrument somewhat like a carpenter's brad-awl, to perforate the maxillary sinus from the canine fossa. An ingenious dentist made for me a silver tube that the patient could wear, and, after washing out the cavity with dilute peroxide of hydrogen, the patient was greatly relieved and subsequently recovered, as I understand.

Dr. R. C. MYLES (presented a case): About five years before the patient began to be annoyed by discharges from the right nostril, and with pains in the same side of the head, which gradually grew worse. I found polypoid degeneration of the right ethmoid, with muco-pus issuing from the right antrum, sphenoidal, ethmoidal, and frontal sinuses. There was an opening through the socket of the second molar tooth into the right antrum, which I enlarged by removing the lower outer wall of the antrum, curetted the cavity, and removed granulation tissue, pus, and necrotic bone. I removed the middle turbinated bone and a number of polypi from the middle meatus, irrigated the frontal sinus and the antrum of Highmore on several occasions. There was only slight improvement. The patient later grew worse, and on December 30 I opened the frontal sinus externally and found pus, and a thickened, grayish, polypoid membrane which protruded through the opening during the chiseling. The cavity was carefully curetted and packed with iodo-form gauze. The patient now has mild attacks of headache at times, but not frequently, which seem to arise from the soreness due to the incision. Most of the interior surface of the sinus can be observed, the lining of which is gradually becoming healthier and hardened.

Dr. O. B. DOUGLAS: I remember a similar condition in a patient who applied at the Manhattan Eye and Ear Hospital, Throat Department, some fourteen years ago. It was seen and diagnosed by Dr. ANDREW H. SMITH as empyema of the sphenoidal sinus, and various attempts were made to relieve the patient's suffering, with poor results, I fear, for we soon lost sight of him. I mention this case, as empyema of the sphenoidal sinus has been spoken of as something new. It is certainly rare.

Dr. HARRIS asked if in examining the antrum with the electric light the line of opacity was looked for just below the eye only, or lower down.

Dr. PHILLIPS: I have just asked Dr. HARRIS concerning the area of opacity in his case. I find that many observers look for the dark area too low down upon the external surface of the antrum. I pay but little attention to this locality, but always look for a dark area underneath the eye of the affected side. Only yesterday an obscure case of antrum disease was sent to me, with a history of having a free discharge from one side of the nose from about 9 to 12 a.m. daily. There was slight tenderness upon

percussion over the antrum upon the same side. The translumination lamp showed darkness underneath the eye and of the pupil upon the affected side, and a brilliant light through both on the opposite side. Translumination was a most valuable adjunct in the diagnosis of this obscure case. I should not rely upon it except as an aid in verifying a partial diagnosis previously made.

Dr. RICE said: I have seen the dark shadow appear lower on the face, producing an opacity of the entire cheek. The shadow depends upon the intensity of the light.

Dr. DOUGLAS asked if the spots of opacity lower down might not be due to a difference in the thickness of the bone.

Dr. WRIGHT said that the electric light, while it amused the patient, was an unreliable method of diagnosis.

Dr. MYLES said: I think the electric light is often very serviceable as corroborating evidence, and sometimes leads to exploration with the trochar, which in turn leads to a diagnosis. The light should not be too powerful. The lower line of opacity is often caused by the absence of reflected light through the antrum.

In What Manner Can Ulcerations on the Nasal Septum, Following Operation, and in Atrophic Rhinitis, Be Healed to Secure an Even and Moist Surface?

Dr. C. C. RICE: We all know how important it is to secure a cicatricial surface which will not accumulate secretions; for the hardened secretions are not only annoying, but cause secondary ulcerations.

For convenience we may classify ulcers of the nasal septum into two large divisions: first, those following operations; and, second, those appearing as the result of some of the varieties of inflammation of the nasal passage. Perhaps it is well to exclude from these the ulcers of syphilis, lupus, and tuberculosis, as these largely require constitutional treatment.

Ulcers from operation will heal much quicker in a moist hypertrophic condition than in an atrophic one, and the chief difficulty lies in treating cases where the septum is dry, atrophied, and presents irregularity of surface. Ulcers behave differently in different methods of reducing the thickness of the nasal septum, and I think the use of the galvano-cautery upon the nasal septum should not be encouraged. In some cases the cautery may be used instead of mineral acids to remove edematous, boggy conditions of the septum; but tissues are removed much more scientifically by some method of excision.

After operation on the septum the bleeding usually stops spontaneously without plugging, and I make it a rule to have the patient blow his nose thoroughly to remove any pieces of tissue or any foreign body, and then I cover the wound with boracic acid and compound stearate of zinc. It is not well to wash out the nose by post-nasal irrigation until the second or the third day after operation. In treating operative ulcers the first week I instruct patients to return the second or third day after operation, but in some cases where they do not return for ten days it is surprising to see how well the healing of the ulcer has progressed, even in cases where there has been not even washing. In atrophic cases these ulcers will not do so well, but in healthy mucous surfaces it is a question if the healing will not progress as favorably by simply cleansing, and without applications of any kind. It

is not possible to cleanse the part without removing the scab, and this is a constant irritation.

I believe there is a greater tendency for the ulceration to deepen after using the galvano-cautery than after excision, and they require more diligent treatment to prevent perforation. In some cases after operation we may be forced to remove granulation tissue many times to get breathing-space. The most important thing is to get a cicatrix that is not only smooth but moist. I believe the application of the galvano-cautery and mineral acids tend to form thicker and dryer cicatrices. Aside from cleansing, ulcerations should be handled as little as possible until the surface is even with the surrounding tissues, and then much can be done by friction with certain mild disinfectants to remove the granular surface of the ulcer and make it hard, slippery, and moist.

Ulcers in atrophic rhinitis are very common, and patients are annoyed with the accumulation of scabby secretions upon the nasal septum and oft-recurring nose-bleed. Post-nasal irrigation, with Seiler's solution, or with some stronger disinfectant, and oiling need to be employed as simple measures. It is necessary to level all small prominences on the nasal septum, to prevent the accumulation of secretions. A good while ago I found I got better results by rubbing the ulcerations thoroughly with a disinfectant than by the coaxing treatment of nitrate of silver. I introduce a cotton-carrier, and, with a small hard pledget of cotton moistened with listerine, rubbed the ulcerations rather forcibly for several seconds at a time. At first there was bleeding from the ulcer, but this soon stopped, and not only the ulcer, but the surrounding tissues, seemed to take on a healthier condition, which resulted in quick healing. I now use borolyptol more than anything else, and with better results. By polishing the surface with antiseptic friction every two or three days for two or three weeks a whiter cicatrix, and one which is smoother and more moist than the usual cicatrix, is secured. In atrophic rhinitis small prominences on the septum can be rubbed down in this way alone. I have found it possible, too, to exhaust certain forms of nervous irritability of the nostril by this method. I believe it is possible to overcome the hypersensitiveness of peripheral nerve filaments in this way, and to control many of the vasomotor disturbances which are frequently seen in the nostril.

Dr. MAYER: The occurrence of post-operative ulceration on the septum is of such frequency that I think Dr. RICE's paper might well be entitled "A Plea for less Indiscriminate Operation by Saw, Trephine, or Knife." If more care were taken of the mucous membrane, ulcers of this nature would not result. As an illustration, I operated recently by dissecting back the mucous membrane, removing the enchondroses, suturing the membrane back in its place, with good result.

In cases of ulceration with epistaxis, I stick to nitrate of silver, which, if used in appropriate strength, is always satisfactory.

Dr. PHILLIPS: I find more ulcers from adults picking their noses than from operations. I have not found it necessary for several years to use the galvanic cautery upon the septum, for a growth not large enough to be removed by the saw or trephine is not large enough to remove at all. I will now speak of the patient I expected to have present this evening. He was the son of a physician, and suffered from a slight exostosis of the septum, with ulceration. His father, unfortunately, sprayed it a few times with cocaine, and the young man after-

wards formed the cocaine habit, and for a year or two used it almost continuously, but for some months had not used it. I had him quit picking his nose with the finger; had him clean the nostril thoroughly several times a day with hot water; applied nitrate of silver, 30 gr. to the ounce, three times a week; gave him ichthyol to use whenever he was conscious of obstruction, and now he is not suffering. I regard it as important to keep the patient from picking the nose. The cases without operation are the ones I generally find so obstinate. I find ichthyol the best treatment, and sometimes use it pure; sometimes with glycerin, 2 dr. to the ounce.

Dr. O. B. DOUGLAS: I should like to have the Fellows of the section try fluid extract of calendula for ulcerations of the septum. I apply it in the form of an ointment, 2 dr. to the ounce, of equal parts lanolin and albolene.

Dr. RICE said that it was not difficult to get the ulcers to heal on the septum. The annoying point is to have the patient keep returning with the same scabby secretions on the same part of the septum. The point is to get the mucous membrane smooth, so that secretions will not accumulate.

Soziodole-Zinc in Diphtheria.—A. C. WIENER

In a private communication to H. TROMMSDORFF, of Erfurt, Dr. ALEX. C. WIENER, of Chicago, states that since he has been treating diphtheria with the soziodole salts he has not lost a single case—not even the most severe one; but according to his experimental and clinical observations the *zinc* compound is far preferable to the sodium salt recommended by SCHWARZ, BOEHM, DRÄER, WILLERDING, LÜDECKE, and others.

[For Dr. SCHWARZ's report, see the BULLETIN, 1895, pp. 1294-1299].

As advantages of this treatment are enumerated the following:

(1) Ease of application—the most inexperienced person can apply it; all that is necessary is to roll a piece of stiff paper into the shape of a tube, and with this to blow the soziodole trituration into the throat.

(2) The affected parts themselves are not touched; in consequence, there is no danger of detaching any of the infected membrane and carrying it into the lower air passages, as is often unavoidable with swabbing and other local applications; furthermore, injury to healthy epithelium or parts not affected by the disease, and consequent general infection from absorption of the virus from the freshly denuded surface are entirely precluded.

(3) The soziodole-zinc powder does not act only as a disinfectant, destroying and detaching the specific germs, but also as desiccant, whereby spreading of the affection is prevented.

With the latter object in view, Dr. W. has chosen bismuth subgallate as the diluent instead of sulphur, as used by Dr. SCHWARZ and others. The powder forms, with the false membranes, a leathery mass which leaves no surface defect after being detached. Gargling is to be avoided for three hours after the insufflation.

Iodoiodoformin is said (*Pharm. Post*, XXVIII, p. 541) to be a compound of iodine and iodoformin, similar to the latter in action, but differing therefrom in having a strong odor of iodoform. It is a light-brown powder, melting at 200° C. (392° F.).

BOOK REVIEWS

Materia Medica and Therapeutics: A Practical Treatise, with Especial Reference to the Clinical Application of Drugs.—By John V. Shoemaker, A.M., M.D., LL.D. Third edition. Royal octavo; pp. ix + 1108. Philadelphia: The F. A. Davis Co.; 1895. Extra cloth, \$5.00 net; sheep, \$5.75 net.

This large volume is a combination of two other works which were formerly published separately. This edition has been thoroughly revised and is practically up to date. On doubtful questions the author is wisely, but not unduly, conservative.

The first part of the work treats in a general way of pharmacology and materia medica. The second part is devoted to the consideration of drugs. We find them very conveniently arranged in alphabetical order; a much better arrangement than is usually found in works of this kind; in most of these books the drugs are grouped into classes, according to their physiological action. When we wish to study certain groups such a classification is of course convenient; but when, as is generally the case, we desire to read of a certain drug, the alphabetical order renders the wished-for drug very easy to find, particularly in a large book. The consideration of each drug is taken up under regular headings, such as the botanical and common names; the preparations; the dose; the pharmacology; the toxicology; the physiological action and the therapy.

Here and there we find prescriptions illustrating the best method of prescribing one or combining more drugs. Within recent years these illustrative prescriptions have become a commendable feature in various text-books. We rather like to see them, not because we wish to carry copied or stock prescriptions in our crania, but because, unless one is educated in pharmacy, he is often at a loss how best to prescribe the desired drug; we are therefore glad to see that this book contains many such illustrations.

What the author has to say about the physiological action of iron is somewhat disappointing. We expected to find the question of iron assimilation elaborately discussed. From what BUNGE has shown, we are disposed to object to the author's statement that "only a small proportion of the iron administered is assimilated, the larger proportion being discharged with the feces." It appears to us that BUNGE has proved that inorganic iron is not absorbed. He has shown that the iron administered is acted on by the sulphur compounds in the alimentary tract, and insoluble iron salts formed, which of course are not absorbed. The beneficial effects of iron medication are explained by the fact that the iron preparation combining with the sulphur compounds leaves the organic iron, which we find in the nucleo-albumin of our food-stuffs, free to be absorbed. As a consequence then, theoretically, it would be of small moment which iron preparation were administered. Practically, however, owing to the "personal equation," the proper selection of a ferruginous drug is a matter of some importance. The effect of iron, in its various forms upon the alimentary mucous membrane, must be considered; hence the necessity for selecting a preparation that will produce the least disturbance.

As to what the author says of serum-therapy, particularly of the diphtheria antitoxin, we are disappointed. The subject of antitoxin for diphtheria is discussed in one page. Certainly a new thera-

peutic agent deserves more consideration than this, especially when, as the author says, "In a series of 2740 cases of diphtheria treated with serum the average mortality was 18.54 per cent., while under former methods the death-rate in an equal number of cases was 45.36 per cent." Such a remarkable decrease did not seem to arouse Dr. SHOEMAKER's enthusiasm. From internal evidence we believe this portion of the volume was written in the earlier history of diphtheria antitoxin therapeutics. The author mentions the following as accidents that are liable to follow after the injections: erythema, urticaria, fever, swollen glands, arthritis, hematuria, and albuminuria. Some of these are believed to be due to certain conditions of the horse-serum; and now that we are promised smaller doses, equal in potency to those at present in use, we can hope, the quantity of serum being lessened, to see a reduction in the number of these sequelæ. Some of these complications, too, arise in cases where no injections of the serum have been given. No lesions seem to have been found in the cadaver, after the use of antitoxin *intra vitam*, that have not also been seen in cases that died without the administration of antitoxin. "Its value," the author says, "cannot yet be estimated." The profession, however, is more and more coming to believe that it is our chief therapeutic agent in diphtheria. We have yet to hear of any one, who, after personal observation in a number of cases, has abandoned the use of this agent. It is a significant fact that on the one hand the vast majority of clinicians are loud in its praise, and on the other, the laboratory workers are almost equally loud in its condemnation.

We find descriptions of many of the latest drugs and preparations, such as ethylendiamine, silver phosphate (a proposed substitute for silver nitrate), bromophenol, tolal, tolypyrin, salacetol, dulcin, tannigen, etc.

The chapters which treat of "non-pharmaceutical remedies and expedients employed in medicine not classed with drugs," constituting part third, is a valuable addition to the volume. Here we find practical and useful articles, deserving critical reading and careful thought by the thorough physician. Briefly, but not with obscuring brevity, are considered electrotherapy, hydrotherapy, climatology, diet in disease, mineral springs, effects of heat and cold, psychotherapy, etc.

We like the work very much. It is full, complete, and thorough. The subjects it treats of really constitute the physician's *armamentarium*, and than in the volume under consideration we know of no better place to study them.

The Functional Examination of the Eye.—By JOHN HERBERT CLAIBORNE, Jr., M.D., Adjunct Professor of Ophthalmology, N. Y. Polyclinic, etc. 21 illustrations; pp. 96.—Phila.: The Edwards & Docker Comp., 1895.

This manual is divided into nine chapters, has a preface, an introduction, test-types, and an excellent electrotype of a well-known optician's firm name. This cut, of a trial case, seems to have been introduced for the sole purpose of having this optician's name made prominent.

The facts are all presented in a clear and practical manner, and any one must be dull indeed who cannot comprehend the subject-matter.

There was no need of the volume, but since it is born we wish it life and good health.

EDITOR'S NOTES

The Allegheny Medical Society.—At the annual meeting of this society the following officers were elected: President, Dr. Frank Le Moynes; vice-presidents, Drs. R. W. Stewart and S. D. Jennings; recording secretary, Dr. Frank Gibson.

The Philadelphia County Medical Society.—The following officers were elected at the annual meeting: President, Dr. J. C. Wilson; vice-president, Dr. James Tyson.

Health Board Changes.—Dr. E. W. MARTIN, who has held the position of chemist of the Board of Health for some years, has been made Chief Inspector of Foods and Offensive Trades. He will have supervision of the milk-supply, and of the different kinds of business which are liable to become nuisances. Dr. E. J. LEDERLE, formerly assistant chemist, was promoted to the vacancy made by Dr. MARTIN's transfer.

Infected Milk.—In order to still further prevent the sale of infected milk in this city, we are informed that the Board of Health will practically require a license from milk-dealers, so as to determine if they are placing on sale milk which comes from neighborhoods where either infection of cattle is assumed to exist, or where on investigation it is found that requisite precautions are not taken to deliver pure milk in this city.

Sale of Drugs and Poisons.—The Chief of Police of the city of Brooklyn has instructed his subordinates to enforce chapter 502 of the laws of 1879, amended by chapter 272, laws of 1886, which makes it unlawful for any except a registered pharmacist to retail or dispense medicines or poisons. This act has been practically a dead letter, and it is to be hoped that it will now be rigidly enforced. Thus is Brooklyn preparing herself for annexation; indeed, she is setting an example which other communities might to advantage follow.

Army and Navy Items.—NAVY.—Assistant Surgeon A. B. Pusey was detached from the *Cincinnati* and ordered to the *Vermont*.

Assistant Surgeon G. C. Hubbard was detached from the *Vermont* and ordered to the *Cincinnati*.

Assistant Surgeon C. M. DeValin was ordered to the Naval Hospital, Philadelphia.

Surgeon J. M. Steele was detached from the Torpedo Station and ordered to special duty on the *Independence*.

Surgeon M. H. Simons was detached from special duty at Portsmouth, N. H., and ordered to the Torpedo Station.

Medical Inspector G. F. Windslow was detached from the *Philadelphia* and granted three months' leave.

Surgeon J. A. Hawke was detached from the *Baltimore* and ordered to the *Philadelphia* as fleet surgeon of the Pacific Station.

Assistant Surgeon A. Farenholt was detached from the *Baltimore* and ordered to the *Monterey*.

ARMY.—The leave of absence on surgeon's certificate of disability, granted to Captain William O. Owen, Jr., assistant surgeon U. S. Army, was extended one month on account of sickness.

Leave of absence for one month, on surgeon's certificate of disability, with permission to apply for an extension, was granted to Captain Benjamin Munday, assistant surgeon.

First Lieutenant William H. Wilson, assistant surgeon, was relieved from duty at Fort Leavenworth, Kansas, and ordered to Fort Bayard, New Mexico, for duty at that post.

First Lieutenant Harry M. Hallock, assistant surgeon, was relieved from duty at Fort Bayard, New Mexico, and ordered to Fort Logan, Colorado, for duty at that post.

Captain Benjamin L. Ten Eyck, assistant surgeon at Columbus Barracks, Ohio, was ordered to Fort Niobrara, Nebraska, for temporary duty.

Obituary.—Dr. JAGGARD, of Chicago, was born in Altoona, Pa., was graduated from the medical department of the University of Pennsylvania, and completed his medical studies in Vienna. He died in Philadelphia after an operation for appendicitis. Although only 40 years of age he had acquired an enviable reputation as an obstetrician, holding the chair in the Northwestern University, Chicago. His contributions to medical literature, in particular to that branch which he cultivated, were many and usually of a high standard of merit.

Dr. LEWIS Y. WIGGINS died at Newburg, N. Y., February 10, in the seventy-first year of his age. Dr. Wiggins had practiced in Newburg for forty years. He graduated in medicine in this city in 1846, and practiced for nine years here.

Dr. CORNELIUS COMEGYS, one of the leading physicians of Cincinnati, died in that city on February 10, aged 80 years.

Sister ANNIE AYRES, for many years Superior of the Sisterhood who formerly had charge of the nursing in St. Luke's Hospital, died in the new hospital building on Sunday, February 9.

Doctors' Exchange

In each issue of the AMERICAN MEDICO-SURGICAL BULLETIN certain columns are set aside as a "Doctors' Exchange." Under this caption will be published, *free of charge*, announcements relating to personal wants of all connected with the medical profession.

A physician who wants to buy or sell a practice will do well to make an offer here.

A physician who desires an assistant in special lines or general practice has here an opportunity of addressing a large number of bright, young physicians.

A physician who needs certain books, instruments, or specimens has the privilege of making known his wants here.

A physician who wishes to exchange books, instruments, or other personal property will very likely hear of a satisfactory offer through this department, free of charge. Open to all connected with the medical profession.

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DETERMINATIVE URINE ANALYSIS

BEFORE a defective action on the part of the kidneys can be fully comprehended in its relation to disease, the investigator must be thoroughly conversant with its normal function and the conditions that may vary the composition of the urine, and yet not indicate any deviation from the physiological standard.

Briefly stated, it may be said that the kidney when acting normally, provided the individual is upon a well-regulated mixed diet, and is taking at the same time about 2000 gme. of water, will excrete about 1500 gme. or 50 oz. of urine daily. Such urine will contain from 75 to 80 gme., or about 1200 grn. of solids. One-half the solid matter will be composed of urea; the other half is made up of a small amount of uric acid, some urates, creatinine, chlorides, phosphates, carbonates, and sulphates.

This being the normal standard, before any accurate deduction can be drawn, the examiner must be familiar with the diet that the patient is taking, and also the amount of fluids consumed daily. This is absolutely essential, because the amount and the composition of the food used will modify very much the character of the urinary excretion, while the functions of the body are still being performed normally.

For instance, if the individual is using largely an animal diet, which contains a small amount of inorganic salts as compared with a vegetable, the total amount of solids found in the urine will be maintained at the normal standard, yet there will be an abnormally large output of urea. On the other hand, if the vegetable class of foods are used largely to the exclusion of the animal, it must then be remembered that the vegetable class contain a much higher per-

centage of the salts, and that much less of the proteids are utilized.

In this instance, as in the one just cited, the total amount of solids excreted will be fully up to the normal standard, yet there will be a comparatively small amount of urea eliminated. In both instances, however, the physiological functions of the body are normally performed; but in the former there is a high grade of nutrition, while in the latter it is at a much lower standard.

In this same connection we find it stated that the amount of solids in the urine is in proportion to the amount of body weight. In a measure this is unquestionably true, but a close study of the physiological laws that govern nutrition prove conclusively that the amount and quality of the foods used have more to do with the kind and quality of the excreta than the weight. Scientifically speaking, the body weight should in a large measure govern the amount of food consumed. Practically, however, the weight of the body does not govern the appetite, nor the amount of work accomplished by the individual. Therefore, to be guided by body weight alone will certainly lead to gross errors, unless due allowance be also made for the kind and amount of food utilized. When all these factors are given due consideration, and when the amount of urine passed is raised to 50 oz., if the amount excreted is below that standard, and when it is reduced to the 50-oz. limit when it is above that standard, then an estimate of proportion of solids excreted may be of some value, but to thoroughly read the true nutritive condition of the physiological economy, more must be done than to simply estimate the amount of the solids. The character of the contained solids must be considered and the

relation that is borne by one kind or class of solids to that of another kind. This is especially true in regard to the katabolic bodies that have been derived from the oxidation of the proteid substances. The rise and fall in the output of uric acid, as compared with the output of urea, yields an almost exact key to the perfection or imperfection of the nutritive processes which are being carried on throughout the whole animal economy. While it is a very difficult task for the ordinary practitioner to quantitatively estimate the amount of urea excreted daily, and as such *data* is of but little value unless the total amount of urine passed has also been determined, the quantitative estimation of urea, while theoretically of great value, can never be made generally practical. The same may be said of the absolute quantitative estimation of uric acid, which, if anything, is more difficult than the determination of urea. In a comparative way, however, the amount of uric acid eliminated, as contrasted with the urea, can be quickly and quite accurately determined. When oxidation throughout the body is being carried on to perfection, the final product of proteid oxidation is chiefly urea, and just sufficient uric acid to decompose the neutral phosphate and form the acid phosphate in the urine to give that fluid its acidity, and prevent the precipitation of calcium phosphates. Such urine will easily undergo alkaline fermentation with the formation of the triple phosphate crystals. Boiling the upper strata of urine of this character in a test-tube and adding a few drops of a 4-per-cent. solution of glacial acetic acid will give no precipitate, if the physiological economy is acting normally. On the other hand, if the oxidation processes of the body have in any way fallen below the normal standard, the output of urea will fall in direct proportion to the imperfection in the oxidation processes. While uric acid is not an abnormal ingredient of the urine it may be so regarded when it appears in unusual quantities, as it does whenever oxidation falls below the normal standard. With every suboxidation process uric acid at once appears in the urine in abnormally large amounts, and the quantity bears a very close relation to the amount of suboxidation. The uric acid is often masked, however, by the neutral phosphates, which have the property of holding large quantities of uric acid in solution in the urine. When this is the case, if the upper stratum of such urine is brought to the boiling-point in a test-tube, and a few drops of a 4-per-cent. solution of glacial acetic acid is added, the uric acid will attack the neutral sodium phosphate and after a few

hours convert it into the acid phosphate, which will not hold the uric acid in solution, and as a result the uric acid will be precipitated, and the amount deposited will indicate the degree of suboxidation. Following after the uric acid are many other suboxidation katabolins, such as the oxalates, lactates, albumen, glucose, etc. When there is added to the uric acid or to these secondary katabolins the bile acids and pigments, there is still further evidence of faulty glandular action, and it indicates that the liver is profoundly affected.

To obtain the amount of solids Haine's modification of Haeser's method is considered quite reliable. It is as follows :

Determine the quantity of urine passed in 24 hours, and then ascertain its specific gravity. Multiply the last two figures of the specific gravity by the number of ounces voided, and the product by one and one-tenth, and the result is the amount of solids excreted in the urine expressed in grains. As already stated, this may lead to gross errors unless the examiner takes pains at the same time to learn the exact character and amount of food consumed; even this is not sufficient, the relative proportion existing between the urea and the uric acid must also be determined.

Having learned how to easily estimate the amount of solids, and the character of the solids eliminated, the practitioner can easily learn to interpret their meaning. Many heretofore obscure reflex neurotic disturbances, which have frequently defied elucidation and tested the skill and patience of the practitioner, have of late been made quite intelligible by a clearer understanding, not so much of the defective action on the part of the kidney, as by being able to correctly interpret the antecedent changes which are the cause of the incomplete action on the part of the kidneys. The danger signals are recognized and preventive treatment is instituted in time to arrest the development of the more serious conditions which, when they come, as they surely will, are recognizable easily by the unskilled as well as by the highly trained in the art of diagnosis.

Defective action on the part of the kidney indicates in every instance imperfect digestion of food, faulty absorption, imperfect utilization of the pabulum absorbed, imperfect oxidation, a poorly nourished and overworked state of the glandular organs—one or all of these conditions combined. This being the case the system is poisoned either by the absorption of toxic products produced in and absorbed from the alimentary canal, or by those which are developed within the animal economy itself.

What the precise *modus operandi* of action of these toxins is has yet to be clearly elucidated. This much, however, is positively established; that, so long as these toxic substances are produced and allowed to act upon the system, the normal state of the system cannot be re-established.

It is the broad principle of the pre-existing damage to the system that is made clear to the examiner by a careful study of these renal defects; and we wish to lay stress upon the necessity of determining accurately whether the kidneys are eliminating normal or abnormal katabolic bodies, and also the character of these waste products.

This knowledge secured, the general practitioner is better able to cope with disease of all kinds. The surgeon, when an operation has been determined upon which does not demand immediate action, will in every instance wait and put the whole system in the best possible nutritive condition, so that the kidneys will have only the normal products of metabolism to eliminate. When this has been accomplished, as it can be in most instances, the patient is in the best possible condition to withstand a severe surgical interference and make a speedy recovery. In particular is this precaution requisite where the proposed operation involves entering the peritoneal cavity. For here it is most firmly established that those cases where the great emunctories are put in good order prior to the operation and can be kept active always do better after an operation than where the reverse holds true. The same remarks hold equally true during pregnancy, since the puerperal state is the least complicated, other things being equal, when the glandular organs and the nutritive functions are kept active and, as nearly as can be, up to the normal standard of perfection. The corollary, therefore, is that during the pregnant state, and especially during the latter months, the urine should be carefully analyzed for the waste products which give evidence of progressive retrograde changes throughout the system, which are developed long before albumin and some of the more apparent indications of disease have made their appearance in the urine, and when it is often too late to render the successful aid that might have been given a few days or weeks before, and thus many a valued life be saved that otherwise must be sacrificed.

Money for Public Charities.—The Cities Committee of the Assembly has decided to report favorably on the bill authorizing the city of New York to issue \$1,000,000 in bonds to provide additional buildings for the care and treatment of persons under the charge of the Commissioners of Public Charities in this city.

ORIGINAL CONTRIBUTIONS

NOTES ON A SERIES OF ONE HUNDRED CONSECUTIVE OPERATIONS FOR APPENDICITIS*

By ROBERT T. MORRIS, M. D.

PROFITING by advances which many surgeons have made during the past three or four years, I am enabled to present to-night a series of one hundred consecutive appendicitis cases upon which I have operated, with the result of obtaining a mortality rate of 2 per cent., and a post-operative hernia rate of zero.

For such an outcome I make no claim to any particular skill beyond the simple application of resources with which we have all become more or less familiar of late years.

Classification of cases:—

Acute appendicitis, with abscess.. .. .	34
Chronic appendicitis, with chronic abscess..	4
Acute appendicitis, without abscess.....	12
Chronic appendicitis, without abscess.....	40
Tuberculosis of appendix.....	6
Cancer of appendix.....	1
Appendix obstructed by torsion.....	2
Uninfected appendix, with concretion.....	1
Total.....	100
Deaths.....	2
Post-operative hernia.....	0
Males.....	76
Females.....	24

Abscess Cases.—All of the acute appendicitis cases to which I was called were operated upon immediately, with the exception of two patients who died before my arrival at their homes. Of the 38 abscess cases 36 recovered and two died. One died from suppurative nephritis, the other from septic peritonitis.

Several of the patients who recovered were nearly moribund at the time of operation, with various degrees of septicemia and peritonitis.

The appendices were removed in all but five of the acute cases. Two of these appendices had already sloughed, and in three cases the condition of the patient forbade any work beyond the most expeditious opening of abscesses. There is no position in which nicer surgical judgment is required than in these moribund cases in which the patient may die from shock if we stop to remove the appendix, or he may die from septicemia if we leave it in. Several patients with gangrenous appendices had fecal fistulæ after operation. All but one of these fistulæ have closed spontaneously, and that one will probably need to have the cecal wall infolded. Four cases had phlebitis of saphenous veins. The phlebitis involved the left saphenous vein in three of the cases. This may be one of the curious groups of coincidences seen in surgery, or it may call for a special explanation.

In the treatment of all of the acute cases I follow the general plan of making the smallest useful in-

*Read before the Surgical Section of the New York Academy of Medicine, February 10, 1896

cision, cleansing abscess cavities with peroxide of hydrogen and saline solutions, draining with a small capillary wick, and suturing structures of the abdominal wall separately and accurately. I do not wish to criticise the method of employing counter-openings for drainage and using gauze packing; for it is perfectly evident that every workman uses his own tools best, and it is only in my own practice that these resources would have a death-rate of their own. If I were to use gauze packing for drainage some of my patients would die of shock or insidious septicemia from that cause alone. The same is true of counter-openings for drainage, and several of these patients would have post-operative ventral hernias. If I were to use opium after operation patients would fail right and left. If the resources of peroxide of hydrogen and saline solution had been omitted, several patients would have suffered from post-operative infection of the peritoneum.

The principles employed in the treatment of acute appendicitis cases were those which I have adopted from different operators, and detailed in my published "Lectures on Appendicitis."

The reason why there are no post-operative ventral hernias in the series is because of the application of two principal resources—accurate suturing of abdominal walls, and suturing the cecum to the margins of the abdominal drainage opening in suitable cases.

Acute and Chronic Appendicitis Without Abscess—Thirty-eight of the cases of this group were operated upon through the inch-and-a-half incision. In the remainder it was easier to work with a longer incision. Thirteen cases were not complicated by adhesions, although several were on the point of perforating. The remainder had all of the various degrees of adhesion that are met with in appendicitis work. It is a popular impression that cases with extensive adhesions are not proper ones for the short incision; but several surgeons inform me that they have had my experience in finding that the sense of touch was more accurate than the sense of sight in such cases, and that it is not difficult to give patients the advantages of an incision which is merely large enough to admit the surgeon's forefinger. The claim that the short incision method is dangerous must be settled by statistics. None of my cases without abscess have died, or have developed post-operative hernias. The appendices were removed in all but two of the cases of acute and chronic appendicitis without abscess. In those cases, after separation of adhesions which had caused distress, the appendices were found to have dwindled to mere fibrous strings.

Tuberculosis and Cancer of the Appendix.—In two cases of tuberculosis and in one case of cancer of the appendix the appendices were removed. In four cases masses of tubercle had replaced the appendices. In one case of tuberculosis, in which the incision was left open for drainage, hernia threatened, but was stopped by suturing. All of the cases recovered from the operation. Two still have

tuberculous peritonitis. One has general tuberculous infection, which has apparently been checked by creosote treatment.

Obstruction by Torsion.—In two cases the appendices had become twisted upon themselves in such a way as to dam their lumens, which were distended with mucus. The patients suffered from persistent nausea and discomfort in the appendix region. The appendices were probably not infected; but it seemed safer to remove them, although I have always been opposed to the idea of removing uninfected appendices, as will be seen by careful reference to my published contributions to the subject.

Uninfected Appendix with Concretion.—In one case the appendix contained two concretions which were pushed through into the cecum, and the appendix, evidently sound, was left undisturbed. The symptoms of appendicular colic, from which the patient had suffered, disappeared after the operation.

In appendicitis work I have been guided by the rule to make a correct diagnosis and then operate, no matter what stage the case might be in at the time.

I have taken this stand on purely moral grounds. The infected appendix is a cap which sometimes snaps, sometimes flashes, and sometimes causes an explosion, and none of us can tell in advance just what is going to happen.

New York ; 49 West 39th street.

TWO CASES OF INTRACRANIAL PRESSURE *

By THEODORE DUNHAM, M.D.

CASE I.—The patient, M. M., was a female, aged 40, married, and a domestic. Little could be learned of her previous history. One report was that she seemed a "nice, smart woman," but there was suspicion of a strain of lunacy and also of epilepsy.

On June 27, 1889, while staying in a boarding-house, she started out into the hall to draw some water, and fell down a flight of stairs. The landlady found her at the foot of the stairs, senseless and breathing heavily. The heavy breathing soon ceased, but she did not regain her senses. She was taken by ambulance to Bellevue Hospital. On admission she was comatose, and there was incontinence of urine.

Next day, June 28, her condition was as follows: T. 104.9°, P. 100, R. 23. Comatose. Head turned constantly to the left. No paralysis or anesthesia discovered, but reflexes greatly blunted. Pupils normal. Moderate ecchymosis and edema about the left hand and left knee. At the left frontal eminence is a tumor, soft in the center, hard at the periphery, and inside the peripheral hardness is rather distinctly to be felt another ridge, especially at the lower portion, suggesting a depressed fracture. Above the ear and forward of it the scalp pits slightly on pressure.

* Read before the Hospital Graduates' Club, January 23, 1896

7.30 p. m.—Urine by catheter $4\frac{1}{2}$ oz., and bed wet from incontinence. Urine yellow, turbid, faintly acid, 1015; albumin, large trace; no sugar.

9.00 p. m. — Ecchymosis is appearing over left forehead. Head completely shaved. Fluid aspirated from the hematoma to facilitate palpation. At the center only the skin seems to lie between the finger and the skull, as if the other tissues had been crushed aside, and the hard margin is apparently composed of them, for it moves with the soft parts. No evidence of fracture found by palpation. Fed by stomach tube.

Next day, June 29, 9.00 a. m.—T. 104.8°, P. 116, R. 20. Quality of pulse not quite so good. Pupils small and scarcely responsive. Right side of mouth sucks in and puffs out during respiration, and saliva bubbles and drooles from it.

I had before me a patient in profound coma, with no apparent signs of alcoholism, with a temperature of 104.8°, pulse 116, and growing weaker, and a hematoma the size of a hen's egg on the left forehead. I decided to do an exploratory operation, on the suspicion that the symptoms were due to cerebral compression. At 11.30 a.m. the operation was begun, with the assistance of Dr. LAWRENCE LITCHFIELD. No anesthetic was given at first. A cut to the bone half encircled the hematoma. On elevating the epicranium, the tissue covering the center of the hematoma was found to consist only of the skin; the deeper tissues had been thrust asunder over an area half an inch in diameter. The skull displayed a nearly straight, shallow, and almost linear furrow, two inches long, passing from before backward directly under the hematoma, and there was oozing from several points along it. There was doubt as to whether this were a linear fracture, or simply the track from which a blood-vessel had been torn in elevating the epicranium. The trephine was so applied as to include a portion of this line. On removing the button it was seen that the furrow was merely on the surface, and that there was no fracture. The dura was uninjured and of normal appearance. The finger detected pulsation, but it was not visible, and the dura bulged into the trephine hole. With a scalpel a puncture was made through the dura. At once a clear, faintly yellow fluid spirted out to the height of a foot or more. The height of the fountain gradually fell, but the fluid continued welling up in the trephine hole to the amount of 6 oz. by estimation. It was thought best to allow free escape for the fluid. A groove was cut in the skull so as to lead radially from the trephine hole, and a drainage tube was so stitched to the scalp flap as to lie in this groove and project into the trephine hole without danger of being collapsed, or of being so displaced as to press on the brain. The other end of the tube found exit at a dependent portion of the scalp incision, and was received in a mass of sterile gauze. An enema containing $1\frac{1}{2}$ oz. of whisky was given just before operation and repeated during the operation, beside several hypodermics of whisky.

The operation was begun without an anesthetic, the patient not having rallied at all from coma. Before the trephine was applied, ether was lightly given, for she began to struggle slightly. She was taken from the operating-table at 1 p.m.

The temperature rose still higher shortly after operation, and at 4 p.m. it stood at $105\frac{1}{2}$ °, with pulse 120 and respirations 30. After that the temperature curve fell with an even sweep until the next morning at 7 o'clock, when it stood at 98°, with the pulse 95 and the respirations 17. During the night she was fed by stomach tube.

Simultaneously with the slow and progressive fall of temperature she improved in every other way. The respirations became slower. The pulse became slower and stronger. Before operation and for a few hours after she lay absolutely limp, the lips sucking in and puffing out with the breathing, and saliva bubbling and drooling from the mouth. In the latter part of the afternoon the first sign of returning motion showed itself in an occasional twitch of the fingers of the right hand. An hour or two later the right hand was seen to crawl over the bedclothes with an indefinite motion, as of dawning tactile sense. Shortly afterward the legs began to move slightly. About 6 p.m. she broke into a free perspiration. She could not yet drink, and was fed by stomach tube. The urine was drawn by catheter.

At 11 o'clock the next morning, 22 hours after operation, she was fed by stomach tube as usual. During the withdrawal of the tube, an expression of disgust crossed her features—the first expression that had wakened them from their paralytic lethargy since she came to the hospital. For the first time also, she regurgitated a part of the fluid, showing a revival of the vomiting reflex. From that time on the restoration of functions was more rapid. At 4:30 o'clock in the afternoon, the head was dressed. The dressings were wet, evidently from the outflow of fluid from beneath the dura. By that time she had gained enough power, motor, sensory and mental, to hold her head as directed and, when asked if it hurt her, to answer with great deliberateness, "No."

On July 1, two days after operation, she passed urine voluntarily at 8 o'clock in the morning; and at 3 o'clock in the afternoon, she was able to drink a little milk. She slept much of the time, and during sleep the right side of the mouth still puffed out frequently. When awake she answered questions intelligently, but very slowly. All her motions were very deliberate. She seldom made any motion except in response to a request or a gesture. She never volunteered a remark. Her eyes were intelligent, but had a far-away look, and such a serene calm as is often seen in a baby's eyes. They moved always slowly. When a hand was put out to her, she took it, but very slowly, calmly, and seriously. Some flowers were held near her. She simply gazed at them in a fixed manner for nearly a minute. They were then carried to the patient in the adjoining bed, when our patient was seen with gaze riveted

upon the flowers and a hand held out. A flower was placed in the hand. She clasped it slowly, fixed her eyes upon it, and with great deliberateness raised it to her nose. During this scene her face remained entirely without expression. It seemed that her mental reflexes had returned and were slowly operative, but that volition had barely dawned. As the day went on her understanding continued to improve, and finally she asked for a cup of tea.

On July 2d she moved her limbs freely and turned on her side voluntarily. She said she felt well.

On the 3d she was getting over her slowness of speech. She was taking abundant nourishment, and the tongue, which had been heavily coated, was clearing. In the latter part of the day she began for the first time to be restless, and was continually trying to get out of bed. She began to talk in a semi-delirious manner. On the 4th and 5th the condition was apparently unchanged. During the night of the 5th she had involuntary movements. On the 6th she was more irrational and silly. She tried to pull the dressings off, but said she had no pain in the head. On the 7th she talked more rationally. On the 8th the wound was dressed. Union was perfect. The drainage tube was taken out. On the 11th she answered all questions sensibly, but still volunteered nonsense. During the night she had tried to get out of bed and talked a great deal. She said that she had formerly had epileptic fits. The following night she kept the patients awake with loud and senseless talking.

Her physical condition steadily improved, but her mental state became worse. She would get up frequently at night and wander mysteriously about, keeping the ward in a reign of terror.

On the 18th she was transferred to the Insane Pavilion, and thence to the Insane Asylum, where she remained for two years. She was reported always demented, but usually quiet and docile. Except for rather obstinate constipation, her physical condition was good.

CASE II.—I wish to speak very briefly, indeed, of a second case where I suspected intracranial pressure, and only for the purpose of calling attention to a form of treatment which I used on the suggestion of my brother, Dr. E. K. DUNHAM. It was a case of fracture at the base of the skull in a male adult. There was hemorrhage from the ear, and a later-appearing ecchymosis over the mastoid process. The patient sank into stertorous coma with rise of temperature.

With the view of reducing intracranial pressure, the following treatment was carried out: A bath-tub was filled with water just as hot as the hand would bear. Blankets were soaked in it, wrung out lightly, and at once wrapped about the patient, enveloping him from the waist down. The blankets were changed every few minutes. Very soon the symptoms began to ameliorate, and before long the patient had regained his senses. A number of hours later he again sank into coma. The same measure

was resorted to, and he soon came out of his coma again. He made a good recovery, and remained for a long time a helper of mediocre ability in the ward.

The above two cases of intracranial pressure differed greatly in the treatment. In the first, the diagnosis was very doubtful. I thought there might have been hemorrhage from the brain or meninges, with gravitation of the corpuscles, so that only clear serum flowed from the opening made at the forehead. There was no evidence of fracture. Perhaps trephining under the circumstances would be thought somewhat radical; it had, however, the most felicitous result.

The second case showed, I think, the efficacy of a very conservative measure in a somewhat similar but less grave condition.

New York; 110 West 57th Street.

[For discussion see p. 262.]

THE TREATMENT OF EDEMA OF THE LUNGS *

By LOUIS FAUGERES BISHOP, A.M., M.D.

EDEMA of the lungs is, of course, not a disease by itself, but an event in the course of other diseases. Occasionally, however, it arises suddenly without the underlying cause being perfectly apparent, and at all times it is of sufficient importance and danger to merit separate consideration and prompt and appropriate treatment. Whatever condition may have pre-existed, the onset of edema of the lungs is indicated by dyspnea, very marked cyanosis, frothy expectoration, and moist râles over the entire chest. If the patient is very weak, and does not cough up the exudation, the expectoration may be absent. The indications for the relief of this condition are the re-establishment of the circulation in the lungs and the stimulation of the functions of the lungs themselves. While we must not minimize the necessity of acting through the heart by means of stimulation, we must place greater emphasis than is usually done upon the direct treatment of the lungs themselves. The usual recommendations of the text-books are much the same as those for the treatment of cardiac insufficiency in any other condition—namely, nitroglycerin, digitalis, strophanthus, etc. The problem is the old one of cardiac stimulation in critical conditions. It will not be discussed here, because the object of this paper is, to emphasize the value of another procedure, though cardiac stimulation must never be neglected. We refer to the *efficient* counter-irritation and poulticing of the *whole* chest. Like many other valuable procedures this has lost its proper appreciation, because often improperly conducted. Poultices as usually applied in these cases—that is, with poultices perhaps half an inch thick and a few inches broad to various parts of the chest—are worse than useless, because the benefit hardly outbalances the disadvantage of the disturbance of the patient; but a large, thick jacket-poul-

* Read before the New York State Medical Society, January 30, 1896.

tice, either made in one piece or in sections, large enough to envelop the whole chest and thick enough to retain its heat for a considerable time, will often in a few moments bring the patient from a gasping, water-logged condition to one of comparative safety. The mode of procedure is this: Apply a mustard poultice, one to ten, to the whole chest until the surface is reddened; then remove this and apply the above described poultice, and renew it, not after the lapse of a particular number of hours, but when it is becoming cool. One who has witnessed the striking results of this procedure in a case of chronic nephritis that has suddenly taken a bad turn, will ever after rely more upon these things than upon any drug treatment. Properly conducted, this treatment with a heavy patient is indeed a task which would tax the resources of even the best trained nurse. It is our experience that outside of a hospital ward the only way to have it properly done is to do it one's self. A large, stout patient, weighing perhaps 250 pounds, came under our care suddenly in the middle of the night with edema of the lungs, threatening immediate suffocation. We procured at a neighboring feed-store a half-bushel of linseed meal, and with this, a wash-boiler of hot water, and a sheet we made a poultice sufficiently large to envelop the chest of this ponderous patient. The effect was so immediate and satisfactory that the attendants were perfectly willing to follow with more poulticing of a similar size until the patient was out of danger.

The use of pilocarpine is attended with such marked and immediate physiological effects that we think of it as a drug that might be available in desperate conditions. Its effect on edema in other parts of the body would lead us to its consideration in edema of the lungs, but in edema of the lungs the condition is a little different. If an exudation takes place, it is rather harmful than otherwise in clogging up the smaller vessels. Whether or not the exudation into the lungs would be temporarily increased coincident with the profuse sweating I do not know, but at any rate it would seem that the risk would not be counterbalanced by the problematic benefit of the withdrawal of a few ounces of fluid from the circulation; however, cases have been reported in which it was thought impending death from edema of the lungs was averted by the use of jaborandi. There is one organ which has it in its power, if it can be made to do so, to control edema of the lungs, and that is the heart. If the circulation into the lungs could be brought to just the right condition of pressure in the arteries and freedom of flow in the veins, the condition would adjust itself; but the pulmonary circulation, with its complicated system of vessels, makes it difficult to appreciate just what the disturbance is which induces edema. It goes without saying that the heart should be stimulated to the best of our ability. Heart stimulation must always be a question of individual judgment. The man who will clear up the indefinite knowledge as to the use of stimulants

in disease will confer a very great benefit on humanity.

Phlebotomy is a measure which has been resorted to in pulmonary edema from the earliest times. Its rationality depends upon our view of the causation of the edema. If we suppose edema due to blood stasis, we might certainly expect good results from it. Certainly it would suggest itself very strongly in an edema coming on in a strong person suffering from an acute disease. In a case of pneumonia in a very strong man, who had been suffering exposure during the course of the disease, pulmonary edema set in very suddenly. The condition of engorgement on the lungs was so extreme that death seemed to be impending. I resorted to phlebotomy, taking 12 ounces of blood from the arm. The symptoms subsided for a time, though to return again more gradually with a fatal termination. I think that in another similar case I would do the same. But always our chief reliance will be counter-irritation and poultices in very acute cases.

New York; 30 West Thirty-sixth street.

ONE HUNDRED CASES OF LARYNGEAL TUBERCULOSIS*

By JOHN H. METZEROTT, M.D.

Late Assistant to Dr. HAJEK; Assistant to the late Professor SCHNITZLER

UPON my arrival in America I was very much surprised to read in the BULLETIN a report of a case of laryngeal tuberculosis which I myself had treated at the private clinic of Dr. HAJEK. Inasmuch as this particular patient attracted a great deal of attention at the Gesellschaft der Aertzte, in Vienna, and, later, at the gathering of the Society of German Naturalists and Physicians in the same place, and inasmuch as he has been placed in a category to which he does not belong, I make use of this opportunity to vigorously attack the placing of this one patient in the statistics which have been compiled of cases of laryngeal phthisis cured by operative interference. But before going any further, let me read the case as it has been translated from *Semaine Medicale*. The report appears under the title, "Removal of the Epiglottis in a Case of Laryngeal Tuberculosis." "In the case of a man with laryngeal tuberculosis the epiglottis was so greatly infiltrated that the patient could no longer swallow. HAJEK removed the epiglottis entire by means of a galvano-caustic loop, and treated the wound with lactic acid. One month later the man could swallow with ease. Later one of the vocal cords, which was ulcerated, was curetted. Lactic acid caused a rapid healing. No relapse after one year. Increase in weight, 38 pounds. Two other similar extirpations of the epiglottis are reported by the author. He claims that the operation is easy, and that there is no great dread of hemorrhage. It is indicated in cases of infiltration or of circumscribed tumors. The cases also prove, the author believes, that the prognosis of laryngeal phthisis is not so grave as one would suppose."

* Read before the Washington, D. C., Medical Society, October, 1895.

HÁJEK made one great mistake with this patient. He based his diagnosis solely upon that which a laryngoscopic and microscopic examination revealed, made no examination of the chest and the rest of the body, paid no attention whatever to the history of the affection; while that which would have caused him to render a different or modified diagnosis escaped him, and a physician like myself, with but very little experience and knowledge at that time in this particular field, by a chance observation was able to render a diagnosis which was substantiated at the clinics of Professors FINGER and NEUMAN and, later, at that of Professor BILLROTH. Once, after treating the patient, he called the attention of the author to a circumscribed growth upon his arm. It was so typical that there was no doubt of the affection being lupus vulgaris. In his buccal cavity, close to the left angle of the mouth, the reader also detected an infiltration which the patient, who was 35 years old, claimed had existed since childhood. Of the latter I was somewhat in doubt, never before having beheld lupus of the mucous membranes, but by taking the case to the clinic of Professor FINGER a positive diagnosis of lupus was rendered. We were then sure that what was in the larynx was also lupus, and what Dr. HÁJEK operated upon and what I later removed from the ventricular bands and cords was lupus and not tubercular tissue, which bacteriologically and microscopically may be almost one and the same thing, but which, clinically at least, is something far different.

If pathologists are determined to class lupus with tuberculosis, then let me remind my listeners that it is a type of tuberculosis which runs the chronic course extending over decades, the prognosis of which is good, so far as it pertains to life, which is certainly not the case in the ordinary forms of tuberculosis of the larynx. The question which naturally arises and presents itself is this: If such a brilliant laryngologist as Dr. HÁJEK has made such a great mistake as to cite a case of lupus as one of ordinary phthisis, how many erroneous reports have crept into statistics which the European laryngologists have been presenting to the medical fraternity? This, then, is one case which must be stricken from the records of cures effected through operative interference, although the *data* of the case are accurate in every other particular; the patient not having been able to eat until the removal of his densely infiltrated epiglottis, and having gained 37 pounds thereafter, as stated in the report.

As regards the other two cases in which the epiglottis was removed, allow me to state that one, indeed, had the appearance of tubercular infiltration, but was nothing save an ordinary papilloma which, being hidden back of the epiglottis, escaped detection for several weeks, but which, undoubtedly, caused the edematous and infiltrated appearance of the edge and anterior surface of the epiglottis. It was diagnosed at first as tuberculosis, but the diagnosis was changed, and the case has crept into this report erroneously. It may be interesting to men-

tion the fact that this papilloma, as in the case of lupus, interfered greatly with deglutition, but upon removal no further difficulty was encountered in swallowing. In the third patient there was no doubt about his having had tuberculosis. The removal of the epiglottis was followed by a temporary relief of disagreeable symptoms, but a cure was not effected, the patient dying a few weeks afterwards.

And now, reverting again to the case of lupus which we observed closely for two years, I will say that this patient was not cured; that lupoid tissue still remained after the operation at the base of the epiglottis, the ary-epiglottic folds and the one ventricular band which had not been removed, although all these regions had been repeatedly curetted and subjected to applications of 60-per-cent. lactic acid. When the patient was last seen at the surgical clinic of Professor BILLROTH, he was awaiting an operation upon the lupoid tissue of his mouth, upon which, as is quite frequently the case, an epithelioma had developed.

So much for these three cases, two of which proved to be non-tubercular. We must exclude two more cases of decubitus laryngis which went from clinic to clinic and were treated as tubercular on account of the anemic and swollen appearance of the tissues, which simulated tuberculosis in almost every respect; but the history obtained in the wards in which the patient had been previously confined and the future course of the affection proved beyond a doubt, that the diagnosis of tuberculosis was wrong.

Three cases of rhinoscleroma, treated for many weeks as tubercular, must likewise be eliminated, as must also a case in which the diagnosis was obscure, it not being established whether the affection was cancerous, syphilitic, or tubercular, the patient disappearing during the course of treatment. The process, however, was situated in a locality which is a favorite seat for an epithelioma—the sinus pyriformis. As to the correct diagnosis of the remaining cases there was no doubt. They were very typical; and in all of them, in addition to the affection of the larynx, there was more or less evidence of marked infiltration in the lungs.

These cases we divided into four groups: those in which the process was not far advanced; those in which it was; those which ran an acute course; and those in which the tendency was inclined to be chronic.

Of the acute form—that is, acute miliary tuberculosis of the larynx—we watched eight cases, and they were the most interesting of all; for we beheld the tubercles as they developed, spread, and disintegrate. In four of these there were processes in the nose, pharynx, tonsils, and the posterior pillars as well as in the larynx; and in one of them the writer removed with the cold snare an infiltration upon the posterior pharyngeal wall, which looked like a mass of adenoid tissue, but which later was found to be tubercular. A denuded surface, the size of a quarter of a dollar, remained behind, the edges

of which granulated in the short space of two days. After that time this patient complained of his larynx, and a condition was found to exist here which revealed the true diagnosis. The patient died a week later of diffuse miliary tuberculosis, the tubercles being found in the liver, spleen, kidneys, and brain. In two cases, where there was an infiltration in the tonsils and the posterior pillars of the pharynx, death followed a few days after the first symptoms became manifest. In the case with the nasal complication, patient lived about a month after her nose had been curetted and treated with lactic acid. In these eight cases the treatment of the larynx was symptomatic. Insufflations of iodoform and aristol and injections of 10 and 20 per cent. of menthol and 4 to 10 per cent. of cocaine were given. We think that every one will agree with us that a diffuse miliary tuberculosis is wont to terminate with death whatever the treatment, and that, while we did decidedly wrong in operating upon two of these patients, a little consideration will be shown us on the ground of an error in diagnosis, the appearance of things not always being typical.

The greatest number of patients coming under our care belong to that class in which the process was not far advanced. The reason for this was simple. Patients would be sent to us from the internal medical clinic as soon as they complained of throat symptoms; hence we observed many cases almost from their very inception. But it was surprising how far some processes would be advanced before they would reach us, and how little the patients complained when the ulcerated processes were quite extensive.

Before going any farther, let me state that the statistics of Vienna, which have been compiled with great care, show that seventy-six per cent. of all deaths through disease are either directly or indirectly due to tuberculosis, and that eight per cent. of the tubercular affections of the lungs is accompanied with tuberculosis of the larynx. We believe that for America this percentage of laryngeal tuberculosis is much too high; that scarcely two per cent. of the cases of pulmonary phthisis in this country is accompanied with phthisis of the throat. However incredible the percentage for Vienna may seem, we believe that it is more or less accurate, from the great number of cases beheld in the different wards of the various hospitals.

Pallor of the mucous membranes of the buccal cavity, especially the uvula and soft-palate, was a symptom upon which we laid a great deal of stress, and which we found in at least fifty per cent. of this early form, and, for that matter, the later forms of tuberculosis. This symptom we believe is quite weighty, and often exists before there is any evidence of the process either in the larynx or the lungs. We believe it can be explained upon the basis that general anemia accompanies tuberculosis, as is evidenced by an examination of the blood, which is found to be poor in quantity, quality, and color. The pallor of the mucous membrane of the larynx

was a symptom which we regarded as almost pathognomonic. When it was well pronounced it was almost invariably a precursor of tuberculosis, which later became manifest. In many cases it was the only condition which we found upon the first examination; and to the present day, whenever we behold that wax-like appearance, our first thought is tuberculosis. The causes for this may be twofold: first, the anemia and a poor circulation; and second, capillary infiltration, which interferes with the proper nutrition of the mucous membranes. The lactic-acid treatment and curettement of the larynx is founded on the latter theory, the idea being to set up an irritation in the larynx which will send an increased supply of blood to the parts. But anemia was not always present; the opposite condition often prevailed. There was frequently an appearance of the membranes which, upon the first examination, indicated nothing save a catarrhal condition; and there was also an injection of the cords which we have observed in about a dozen cases, in which the color can be described by no other term save a light brick-red. Every time that the author noticed this peculiar hue, which he has observed in no other laryngeal affection, it was followed by an infiltration and a rapid dissolution of the tissues. Never having heard this peculiar tint spoken of, I call my listeners' attention to the fact. Has it been noticed in America? Infiltration of one or two ventricular bands were frequently the first symptoms of a tubercular infiltration, and, while we have often beheld this condition in ordinary chronic laryngitis, we believe that it is quite characteristic in the majority of tubercular cases, especially when it is unilateral. Swollen edematous arytenoid cartilages were likewise early symptoms, as were apparent thickening of the inter-arytenoid commissure, which latter condition, while occurring quite frequently in phthisis laryngis, we are far from regarding as pathognomonic, as was the belief of the earlier laryngologists. At times the glassy, swollen appearance of the epiglottis manifested itself before an invasion in the larynx proper; and, as this usually accompanies an inter-laryngeal infiltration, it may not be out of place to state that we have noticed it six or seven times in cases of abscess of the epiglottis, situated upon the anterior or posterior surface of the same. We had about a dozen cases in which the affection was sub-glottic, and three of these had the appearance of sub-glottic laryngitis, the sub-cordal, loose, areolar tissue being swollen and fluttering like a wave when the cords were approximated. Two of these cases I punctured with the laryngeal hypodermic syringe of Herying, withdrawing on both occasions a thin, serous fluid. We emphasize this fact; for in these two cases we succeeded in doing something which we had never accomplished before, namely, to actually withdraw a fluid from an edematous-appearing laryngeal mucous membrane. At no time were we ever able to behold an immediate disappearance of an edema of whatsoever kind in the larynx after puncture or scarification, wherefore

we think that the observation made by Dr. HAJEK is correct: that in cases of acute edema incisions into the distended membrane avail but little. We cannot explain the occurrence of this bilateral serous transudate or exudate; but we are satisfied that this sub-glottic laryngitis, as it is wont to be called, is often a precursor of a laryngeal phthisis, and that it occurs unaccompanied by a perichondritis of the crico-arytenoid articulation. Whatever its cause it certainly stimulates the tuberculosis of the serous membrane, in which, at times, at the post-mortems, nothing save a serous fluid is apparent to the naked eye. Of the remaining cases in which the affection was sub-glottic, one was an ulceration immediately below the anterior commissure, which is unusual for tuberculosis, syphilitic processes, and especially gummata, being usually found in this locality. All the other cases of this group were unilateral perichondrites, which were never punctured, the author being aware from personal observation of the danger of collapse of the larynx. Two of these cases of perichondritis ruptured spontaneously, the exudate being forced out whenever the cords approximated. One necessitated a tracheotomy and the other was accompanied by no grave symptoms, the distended membrane affording relief upon collapsing. This disposes of the second group.

The last group embraces the cases which came to us in which the affection was far advanced. Many of these patients, as is frequently the case, were those who, not improving at the other clinics, came to us with the sanguine belief that we would be able to help them. In these, ulcerations and polypoid vegetations were the most frequent things encountered; while in another group were those in whom the laryngeal tissue had a more or less dense fibrous and livid appearance where the infiltrations were quite pronounced, but where the tendency to ulceration and the ulceration itself were slow.

The curettement and lactic-acid treatment being in great favor, and the accounts of the results obtained from this treatment being so glowing, whenever it was feasible we operated upon our patients. We confess that our zeal for intralaryngeal operating was so great that we often operated upon patients whose condition in the larynx might have warranted the same, but whose physical state was such that we would not allow ourselves to operate now; and we have no hesitation in saying that if, in most cases, operating did no harm, it certainly did no good, and that we believe that in some cases it actually hastened and aggravated the process instead of mitigating and retarding it. Of course where polypoid and papillomatous, tubercular tissue was removed, which interfered with breathing by encroaching and occluding the lumen of the larynx, we were justified in operating, whatever the condition of the patient; for the removal of these growths greatly increased his comfort. Of over forty patients operated upon, the record of which was closely kept, and whose physical condition appeared favor-

able for curettement, I cannot say that a single case of the entire number was cured. In some, however, the application of lactic acid, after a removal of the infiltrated tissue, appeared to have some slight influence upon the spread of the disease, but in no case was it more than temporary; and, while these cases ran a chronic course extending over many months, new infiltrations always appeared in the course of time. The best results were those which we obtained after the performance of tracheotomies, which were necessitated by grave conditions existing within the larynx. We watched seven of these tracheotomies very closely, and it was really surprising what an influence these operations had upon the tubercular processes. With the exception of one performed a few hours before death, it could be said of the remaining cases that there was not one in which the edema and ulcerations did not seem to subside to a greater or less extent. The improvement was apparent from the very day upon which the tracheotomies were performed; and, while all of the patients eventually died from the process within the lungs, we believe, from what we have observed, that the young German physician who was so unmercifully handled by his colleagues in one of the larger laryngological conferences was partially justified in advocating tracheotomies in all those cases of laryngeal phthisis where there is an apparent chance of recovery. Just why a tracheotomy seemed to have such an influence upon a tuberculosis is perhaps difficult to explain, but the fact remains that those forms of tuberculosis of the lungs which are accompanied with fistulæ in other parts of the body generally run a more or less chronic course, and that it often happens, when tubercular joints are operated upon which have discharged for many years, tuberculosis pulmonum is quite frequently a sequence. While dwelling upon this fact it may be well to cite a case of a Washington merchant upon whose nose Dr. GRIFFIN, of New York, operated with the sole idea of influencing the progress of the disease within the lungs. This patient I watched myself, and as long as his nose discharged the advance symptoms in the lungs appeared to be greatly influenced. The tracheotomies probably act in the same occult way, and, if they do not cure, they certainly appear to modify the course of the disease. Twelve of our patients we sent into the mountains after operating upon the larynx, and many others received nothing save applications of lactic acid and injections of 20-per-cent. menthol in olive oil. All did about equally well, most of them improving while enjoying the fresh mountain air, and declining upon their return to town. One boy, about sixteen years old, whose larynx was in a badly ulcerated condition, and half of whose epiglottis had been destroyed, and who came in once a week from the country, where we had sent him, to receive intralaryngeal injections of 20-per-cent. menthol, and whom we observed for some eighteen months, I am inclined to believe was really being cured; for his fever ceased, he gained flesh, and

the excruciating pains which he had experienced during deglutition left him, although the infiltrations of the larynx did not disappear. How much was to be attributed to the favorable conditions under which he was placed—the fresh air, the nutritious diet, and proper clothing, with abundant and systematic exercise—we are unable to state, but we are satisfied that the influence which the weekly injections of menthol had upon the larynx had something to do with the prevention of the ulceration of the infiltrated tissue. In this patient, as well as in many others, we observed that menthol possessed, in addition to the antiseptic properties which are claimed for the drug, also a potency of mitigating pain. At the polyclinic of the late Professor SCHNITZLER we saw a patient who had been affected with tuberculosis of the larynx for 30 years, in which the infiltration, as in the case of this boy, remained stationary. At the clinic of Professor SCHROETTER we met a woman with a similar condition and history; it appeared that the process had ceased spontaneously. Our grave cases, in which deglutition was impossible, owing to the pain which was caused when a bolus of food or a drink of water was swallowed, we treated with intralaryngeal injections of cocaine, varying in strength from 4 to 20 per cent. After these injections had been made patients could eat and drink the food and fluids which they had brought with them, and, as a rule, without discomfort or pain. But we noticed a condition which we have never been able to explain. One patient would have trouble in swallowing liquid, and none with solids; while in another the reverse would be the case. Some, however, would experience trouble with both fluids and solids.

The final termination of these latter cases would be quite severe at times, so that we often resorted to the use of morphine in order to mitigate pain, and we gave the drug freely. In one patient we administered morphine hypodermatically in the larynx with a great deal of difficulty, but produced not even local relief. Prof. SCHROETTER attempted this same procedure before the efficacy of cocaine was known to laryngologists, in an attempt to operate upon the larynx, with what proved, however, a fatal result, the amount of morphine injected before anesthesia was produced being very great. Whenever the opportunity was afforded we visited the post-mortems conducted upon our patients and also those of the other clinics. It was really surprising what extensive eprocesses escaped our notice which were situated beneath the cords and beyond. A larynx in which the tubercular process, as beheld in the laryngoscope, appeared trivial, would often be very extensively involved. In not one of our patients did we find the process confined to the larynx, there always being extensive infiltrations in one or both lungs. Of more than three hundred larynges seen at the post-mortems of the different pathological laboratories, we can say that the process in far the greater number was most extensive in the sub-glottic

region, where no instrument yet devised could have reached the seat.

And now, before closing the paper, let me emphasize the fact that there are pathologists of great repute who have never beheld a case of primary laryngeal tuberculosis. We do not wish to take it upon ourselves to assert that it never occurs, because we have some definite data to the contrary; but we do claim that it is extremely rare, and that there are few laryngologists who ever operated upon a tubercular patient who did so when the lungs were not involved. In our own minds there is no doubt that phthisis of the larynx in ninety-nine cases out of a hundred is secondary to that of the lungs, and that it usually makes its appearance during the latter part of the disease, or when the affection is well developed elsewhere. If this latter deduction be correct, which we acknowledge was gleaned only in Vienna, and which is based solely upon our own personal observation, and if the rule holds good that no tubercular larynx should be operated upon unless the condition of the patient is favorable, and further, if it is really so, as we claim, that in many cases the process is sub-glottic and of such a character that its extent cannot always be determined, then the percentage of available cases for operation is greatly reduced, and the prognosis of laryngeal phthisis in the majority of cases is exceedingly grave, whatever means for treatment are at our disposal.

Although we have been enabled to effect cures in but very few cases, it does not follow that laryngologists have not been able to rob the disease of many of its terrors. Thus the antiseptic treatment, which is directed against the prevention of ulceration, has certainly delayed and prevented many a case of perichondritis by the destruction of other germs than the tubercle bacillus. Perichondritis, which gives rise to those terrible laryngeal and aural pains, and which may occlude the lumen of the larynx by fixation of the cords in a position unfavorable for respiration, and may cause suffocation at any moment, can occasionally be absolutely prevented. Then again, by the injection of cocaine and insufflation of other anodynes, deglutition is made possible in most of those cases where the act cannot be performed on account of the accompanying pains. Though the assertion may seem extravagant, there is at least one laryngologist who believes that in not less than twenty of his cases he prolonged the life of his patient by resorting to the production of anesthesia of the larynx, which enabled the administration of nutriment—a most important thing in the treatment of any form of tuberculosis. We are not prepared to assert, but we believe that more than a little could be accomplished in the treatment of laryngeal tuberculosis, were the conditions such that we could take our patients, after operating upon them, into the mountains. The author himself was once a consumptive, his affection having been diagnosed as such by the late Dr. ALFRED LOOMIS, by the elder and the younger Bow-

DITCH, of Boston, and by Dr. HYATT, of this city. Every symptom essential for the diagnosis of tuberculosis of the lungs was present—excessive night sweats, fever of the remittent type, rapid emaciation, cough, profuse sputa, listlessness, glaring eyeballs, diarrhea, pains in the chest, and the physical signs of bronchial breathing and crackling râles. By spending three years in the wilds of California and the desert of Arizona we cured ourselves, and during that time we saw many hundreds who succumbed to the disease; we saw also three cases of laryngeal phthisis which were cured by the climate, the mode of life of the individual, and, above all, the nutritious diet. A better argument we do not desire, and we have no hesitation in advancing the reason why so many consumptives die in the noted health resorts in America, and so many others are cured at the great institutions in the Alps. It is because they depend too much upon the climate in the United States, and heed too little the proper regulation of diet and exercise. The three cases which were cured in the desert of Arizona, and my own cure of an uncomplicated pulmonary phthisis, have satisfied me beyond doubt that tuberculosis could be cured in a great many cases if we would resort to methods which are not new, but which our forefathers and the early Western settlers employed. Long wagon journeys, long walks, and exposure to every form of weather (Flint's "Practice of Medicine"), with a nightly sojourn in the open air or a tent, cured not alone myself, but one of my companions, who had a laryngeal tuberculosis of a rather severe type.

Notwithstanding the unfavorable results attained in my own practice, I am positive that, if I had operated under the most favorable hygienic conditions, three or four of my patients might have been saved, and that brilliant cures might have been effected—cures of that most terrible disease, "phthisis laryngis."

THERAPEUTIC ITEMS

Parachlorophenol in Tuberculosis.—SPENGLER (*Brit. Med. Jour.*, 1896, No. 1827)

The author has experimented with this drug, which was introduced into laryngological practice by SIMANOVSKY in 1894. Its antiseptic powers have been proved by KARPOV for anthrax, and it has been used as a local application in erysipelas, lupus, corneal ulcers, etc.

Solutions were prepared by melting the drug in a water-bath and mixing it with glycerin in various strengths, from 5 or 10 per cent. upward. In some cases it was applied pure by melting it onto a silver probe or absorbent cotton. The applications varied in intensity, according to the case, from slight pressure on the larynx up to more or less prolonged rubbing. Twenty-six cases of laryngeal tuberculosis were thus treated. All except five belonged to a very poor class living in bad surroundings. The tubercle bacillus was found in the sputum and in the secretion from the ulcerated larynx in all. The laryngeal trouble had been preceded by hemoptysis in 10 of the cases, and tuberculous pulmonary les-

ions, were present in every case, and were quite severe in 10 of them.

Of these 20 cases, 10 (or about 38.5 per cent.) were cured completely. In the others, relapses took place either during treatment, or later, when they usually coincided with an extension of the pulmonary lesions. SPENGLER does not claim that parachlorophenol is a specific, but that it cures the infiltrations and ulcerations, even when situated on the posterior surface of the posterior wall of the larynx. It is just these latter which yield with difficulty to the lactic acid or surgical treatment, and lactic acid has no action on tuberculous infiltrations. The phlegmonous inflammation sometimes occurring round the ulcers, and probably due to secondary infection, rapidly diminishes and disappears (sometimes after only two or three applications). Pain is relieved and the drug certainly acts as a local anesthetic far surpassing cocaine, the anesthesia it is stated sometimes lasting 48 hours. Local inflammatory reaction was never observed after its application. Tuberculous tumors do not disappear, but their volume always diminishes.

One case of lupus of the pharynx and larynx was completely cured by parachlorophenol. To test its action on normal tissues the larynx and epiglottis of dogs were painted with the pure drug. The only result was a marked local anemia lasting 48 hours.

Chloroform in Hemoglobinuric Bilious Fever.—

QUENNEC (*Med. Week*, 1896, IV, p. 11)

The author employs the following formula in hemoglobinuric bilious fever:

Chloroform	4 gme.
Powdered Acacia	q. s.
Sweetened Water	250 gme.
Make an emulsion. A swallow every ten minutes. Shake the bottle well before using.	

This treatment, when instituted on the day following the onset of the affection, as soon as a definite diagnosis has been arrived at, is said to rapidly arrest the vomiting, act as a heart-tonic, stimulate diuresis, and invariably reduce the amount of albumin in the urine, the albuminuria ultimately disappearing completely.

The first doses of the emulsion are frequently rejected; but there is always enough left in the stomach to anesthetize the mucous membrane, so as to render subsequent retention possible.

The ingestion of the remedy is pushed until a condition of slight inebriety ensues, which should be kept up until there is marked increase in the quantity of urine.

This result obtained, Dr. Q. substitutes for chloroform, internally, chloral in the form of enemata, in order not to fatigue the stomach of the patient.

Bismal, an Internal Astringent.—F. v. OEFELE (*Bericht über das Jahr*, 1895)

Bismal is the empiric name for bismuth methylenedigallate, $4C_{15}H_{12}O_{10} + 3Bi(OH)_3$. It is a grayish-blue, very bulky powder, which is dissolved by alkalis with a yellowish-red color and precipitated from the alkaline solutions by acids.

According to Dr. OEFELE, bismal is an admirable internal astringent, especially indicated in protracted diarrheas that are unaffected or only transiently benefited by opiates—such forms as accompany certain gynecological affections and tuberculosis. The remedy is given in doses of from 0.1 to 0.3 gme. (1½ to 4½ grn.) every 3 hours, or several times daily, in wafers or powders.

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THE DISPOSITION OF GARBAGE AND OTHER MATTERS RELATING TO THE SANITATION OF THE CITY OF NEW YORK.—When the Mayor appointed a civil engineer and a sanitarian of distinction to the position of Superintendent of the Street-cleaning Department much was expected of him and, to his credit be it said, much has been accomplished toward placing this city in that sanitary condition which she should occupy, seeing that the welfare, not alone of the immediate inhabitants, but of the country, is dependent on her health. The citizens, irrespective of political affiliation, were disgusted at seeing vast appropriations wasted without appreciable result. The methods so long in vogue were unworthy of a community pretending to a high state of civilization. The change in management, which even the most obtuse admitted had become necessary, was effected, and after nearly a year's trial the BULLETIN may well look over the field, note what is real progress, and call attention to what still demands remedy, and this of a speedy nature.

In causing his subordinates to wear a uniform the Superintendent of the Department has taken a step in advance, since at any time the citizen may actually see whether those whom he, as a taxpayer, remunerates are doing that for which they are employed.

The streets of the city are unquestionably maintained in a condition such as, within the memory of the oldest inhabitant, has not been the case. The regular hours within which the ashes and the garbage are collected proves a boon to the householder, since thus the blocking of the sidewalks and the area-ways by waste-receptacles is avoided for the greater part of the day. So far so good. But there remain with us still remnants of the antiquated ways, and it is to these that the BULLETIN calls attention in the hope that the distinguished head of the Department will do a trifle more quickly that which it knows he can; and this, too, before the heat of the summer is upon us, when causes which breed disease should no longer, so far as human agency can prevent, exist here.

The ashes and the garbage are still collected in open carts with the obvious result of the deposition of much ashes and garbage, not alone in the streets, but on the persons of citizens. This can be only avoided by the securing of closed carts, or else—and this is a suggestion to the Superintendent which we wonder he has not himself evolved—by carrying off the cans containing both ashes and garbage and returning them each day, after such disposition of the contents has been made as shall appear most feasible. Such a step would entail the purchase by the householder of duplicate receptacles and also be an extra expense on the Department, but we have yet to hear the citizens of this metropolis growl at increased expense when they saw distinct good results; and the Superintendent of the Department, through the medium of his representative, has told a reporter from the BULLETIN that plenty of money existed for the rendering of the city sanitarily perfect.

Again, why did the Superintendent of this important Department instruct householders to purchase separate receptacles,—one for garbage and one for ashes,—if the employes are allowed to empty both into one cart. That such is the routine custom we are satisfied, not alone from personal observation but also from the numerous complaints which have reached us. The average area-way in this city is at best too small for one receptacle; and if the Department instructs us to purchase two and we obey the mandate, we have a right to expect the Department to empty each separately. Our representative was informed that this order was issued in order to educate householders to the separation of ashes from garbage; but we are loth to believe that this was meant in earnest, since we take it that it is an outrage on the common sense of the community to

suppose for one moment that it is not alive to the necessity of the desired separation. We have waited too long for the day when more sensible matters, or rather manners, would be infused into the Street-cleaning Department to tolerate being told that an order is issued on such a flimsy pretense.

The fact of the matter is that this Department of Street-cleaning is moving entirely too slow. It has been proven in other communities that incineration of garbage is entirely feasible, and the Superintendent need not have wasted ten long months in the investigation of *established facts*. His preliminary report in regard to garbage, presented to the Mayor last week, states the case as follows :

"It is known that garbage cannot be economically utilized if it is mixed with any considerable quantity of rubbish or ashes; it is known that it cannot be economically incinerated unless it is separated at least from the bulk of the ashes with which, under the prevailing New-York practice, it is mixed; it is known that ashes cannot be safely used as a filling material, so long as they contain such waste organic matters as constitute the garbage and some of the rubbish of city collections; it is also known that a very considerable part of garbage and of rubbish, as collected throughout the city, is of sufficient value to pay more than the cost of its collection.

"Aided by a number of active and intelligent experts, I have, during the last ten months, given unremitting attention to this complicated problem. While nothing like a definite conclusion has been reached, and while it is, in my judgment, by no means certain that a general contract for final disposition can wisely be entered into in the present state of our knowledge, I do think that more is known now than was known a year ago, and that there is a fair chance of our securing a good result in the letting of a contract for the incineration or utilization of garbage according to the specifications now advertised."

The Superintendent next considers the question of disposing of street-sweepings, and concludes as follows :

"It is not unlikely that it will be found practicable and advisable to modify our methods of collection very materially. For example, if all paper, other combustible matters and general refuse could be kept within the houses and delivered in a reasonably compact form to collectors always ready to come on signal, a vast deal of litter would be kept from the streets; and whatever of value these materials might contain could be recovered much more easily and completely than under present conditions. It may be that the amount of garbage to be handled will be greatly reduced, and that the reduction will relate largely to its richer and more valuable portions, as a result of the introduction of the household process of destruction or carbonization in connection with the kitchen fire. After several months' use of this method in my own house, and with a good deal of knowledge as to its use elsewhere, I am inclined to believe that this, or some similar device, will solve a very large part of the garbage problem; and that such garbage as is still to be dealt with

will be of a character to be more easily treated by natural processes in connection with the ashes.

Two serious objections exist to the separate collection of garbage. One relates to the maintaining of a separate receptacle, which is almost invariably a nuisance to the householder, and another is the unavoidable swill-like odor of garbage-carts passing through the streets in hot weather. When garbage is mixed with ashes its odor is to a very large degree arrested, and where the masses are small putrefaction is hardly to be apprehended."

Before this report was handed to the Mayor, a representative of the BULLETIN called at the Street-cleaning Department, and was courteously received by the gentleman in charge of all matters relating to the disposition of garbage. In response to our inquiries, he admitted that it was cheaper and quicker to carry the city refuse out to sea than to adopt any other method. Fortunately, the surrounding communities will no longer tolerate such an antiquated method, which results in the deposition of this refuse on the beaches of our neighbors. Indeed we believe that the general government has taken, or will take, steps to prevent this. The Department, therefore, is driven toward the selection of either an incineration or a reduction method, and we are glad to be able to state that specifications looking toward one or the other of these methods have been drawn and are open to bidders. The same representative of the Department told our reporter that he did not think there would be any difficulty in finding bidders. Let the Department go ahead, then, and take the requisite steps toward securing the bids and, finding an acceptable one, place us where, as an advanced community, we ought to be now as regards this garbage question. There is nothing to be gained by experiments at household incineration. Too many of our population necessarily live in flats, where the kitchen range is small or where gas ranges are used. Such a method might well be adapted to the houses of the wealthy; but it should be apparent to the head of the Department that it cannot be practically utilized in tenements, and in the average apartment house.

One word more, and this in reference to the city Board of Health. Our representative was courteously received by the President of this Board, and to the question, "Why does not your Board use its influence with the Street-cleaning Department, so as to cause it to expedite a matter which so clearly concerns the sanitation of the city?" the answer was, "This question is in the hands of others, and I would not care to say anything which might tend to block the plans of others." It strikes the BULLETIN that this is a question in which the Board of Health

is directly called upon to interfere, if it be only with advice. Who is responsible to the citizens for the health of the community, if it be not the men connected with this Health Board, who receive remuneration from the city for attending to matters of a sanitary nature? There should be no squeamishness about making suggestions to other departments. It is in the direct line of duty of the Board of Health to point out to the Street-cleaning Department matters of a sanitary nature which that Department seems to overlook; and if this Board will do its full duty, as indeed it has ever of late seemed desirous of doing, it should spur in every possible way its sister department toward the rectification of unsanitary methods and toward the adoption of any and every means which will tend to lower the mortality rate and to lessen the danger of epidemics.

THE ROENTGEN RAYS.—Rarely has a discovery excited more widespread interest than that of Professor ROENTGEN. The lay press, in particular, is growing hysterical over it, and discoverers and imitators are cropping up all over the country. Certain of these observers are even claiming priority, while men of a supposedly scientific mind are making all sorts of improbable claims as to the possibilities of the process as applicable to surgery. It is noteworthy that the men of repute are keeping more quiet, patiently investigating the exact facts and endeavoring to develop the process before raising hopes which may eventuate as elusive in the minds not only of the profession, but also of the laity. It has been quite definitely established in this country and in Europe that foreign bodies may be detected in the hand and in the leg, but up to the present writing nothing of a definite nature has been proven as to the possibility of determining disease or of locating lesion within the abdomen or the cranial cavity. Therefore the BULLETIN prefers to go slow in printing much as yet in regard to the process, believing in the wisdom of weighing carefully before advancing claims which are as yet untenable.

From a large number of articles in the lay press, this discovery, so far, would seem to have a very ludicrous side as well as a scientific one. Thus, it is claimed in sober earnest, in more than one journal from Maine to California, that the age of privacy has gone by, and that the innermost secrets and family skeletons will now be laid bare with great ease. A would-be scientist says that he has succeeded in photographing his own brain; and one of our lay contemporaries figures the process as consisting in driving a skewer of wood into the skull, photograph-

ing the contents, and revealing *wheels*! The claim is even advanced that we will be able to reach the diagnosis of pregnancy while the impregnated ovum is still within the Fallopian tube, and that the sex of the fetus may be determined long before the sexual organs are differentiated. The world indeed has gone riot over this discovery! A clergyman in the pulpit takes it as proof of Revelation, pointing to extracts from Holy Writ bearing directly on our knowledge of the unseen. The secrets in the brain of a certain wily politician can now be read; the day of scheming and politics, whether lay or medical, has passed; commissioners of public charities can never again quietly go to work to oust professional men from positions long held in charity hospitals with credit and with honor; it is even whispered that the would-be Medical Dictator of the City of New York will be discovered.

Soberly speaking, the BULLETIN, while sharing the hopes of its contemporaries, would as yet inculcate the doctrine of patience and of slow and careful observation. Should the process prove as applicable to the human body as is claimed in many quarters, it will be the greatest discovery of the age. But the *data* as yet at hand certify to little beyond the fact that these so-called X-rays enable us to cast light within opaque bodies. The BULLETIN hopes in a future issue to be able to give its readers facts of an exact nature emanating from a scientist whose name will carry conviction.

IN THE ARTICLE "One Hundred Cases of Laryngeal Tuberculosis," published in the present issue, the author seems disposed to separate lupus from the class of tubercular lesions. One cannot but take issue at the present time with such a statement, it being generally regarded as a fact that lupus is one of the many manifestations of tubercular infection.

ZARNIKO says that a tuberculosis of the nasal mucous membrane exists which is clinically like skin lupus, and may be regarded as lupus whether the skin lesion is present or not, and HAHN distinguishes three forms of nasal tuberculosis: First, ulcerous, a flat ulcer with undermined walls, not as in lupus, with elevated edges; second, tumorous, in which the surface is flat; and third, granular, which is doubtless to be regarded as lupus. ROSENTHAL also claims that lupus of the larynx is, with the greatest probability, of a tubercular nature. MCBRIDE, as far back as 1892, said that it was now generally recognized that the pathology of this disease was closely allied to, if not identical with, tuberculosis. In both diseases

To the diagnosis made in this case we would take prompt and emphatic exception. Few persons seem to be aware that the expansion of the lung after birth is probably accomplished gradually. Certainly most children who have been born asphyxiated and who died during the first few days

GENERAL MEDICINE

Department Editors

WILLIAM CHARLES GUTH, M.D.

and

HENRY TURNER BROOKS, M.D.

Collaborators

ADOLPH ZEH, M.D., ADOLPH BARON, M.D., JOHN HOCH, M.D., WILLIAM VISSMAN, M.D., WILLIAM Y. FINCH, M.D., GEORGE W. BLANCHARD, M.D.

Clinical Application of Elsner's Method of Diagnosing Typhoid Fever Bacilli. — LAZARUS (*Berlin. klin. Woch.*, 1895, No. 45, p. 1068)

The author prepared a medium by adding 1 per cent. of potassium iodide to HOLZ's acidulated potato-gelatin. Very few species of bacteria grow upon this medium. The bacterium coli, however, develops rapidly, but the typhoid bacillus grows slowly, the colonies being almost invisible after 24 hours incubation. At the end of 48 hours the typhoid colonies appear like light, glistening droplets of water, showing the minutest granulations, while on the other hand the bacterium coli colonies are brown with coarse granulations.

Examination of the excrement of five patients yielded positive results, the examinations being made during the first, second, and third weeks of the disease. In one case the colonies were not characteristic until the third day. It is worthy of note that in one of the cases, which had remitting fever in the eighth or ninth week, the bacilli were found after one negative result had been obtained. In 16 cases examined from three days to six weeks after disappearance of the fever, the bacilli were found in three after repeated examinations. One case in particular showed the bacilli 41 days after complete subsidence of the fever.

Numerous examinations of the stools of patients suffering with other affections of the intestinal tract always gave negative results.

Etiology of Icterus in Recent Syphilis. — NEUMANN (*Wien. med. Presse*, 1895, No. 45, p. 1697)

Although it has been known for a long time that jaundice may develop in syphilitics, its association with syphilis has only recently been studied. The former view, that the internal organs become affected only in the later stages of the disease, does not seem to be correct. It is undoubtedly difficult to discover an etiological connection between icterus and syphilis, but the following points may help in arriving at a diagnosis: (1) If no gastric disturbances precede or accompany an attack of icterus, especially when it appears simultaneously with the eruption; (2) if a second outbreak of the eruption is accompanied by a recurrence of the icterus; (3) sensitiveness in the hepatic region and possibly enlargement of the liver occurring at the same time as the eruption; (4) if the antisyphilitic treatment causes the jaundice to disappear; (5) if other syphilitic affections of the intestines occur simultaneously with the icterus.

NEUMANN has observed 14 cases of icterus in recent syphilitics within the last three years, 9 of which were females and 4 males, tending to show that syphilitic jaundice occurs more frequently in females than in males. In 8 cases the icterus appeared simultaneously with the eruption; in 3 it developed after the eruption had appeared, and in one it occurred twice simultaneously with the eruption. He concludes that in spite of the clinical appearances the question of the association of syphilis and icterus

is still an unsettled one, and will remain so until a larger number of post-mortem examinations of recent cases have been made. In his opinion the cause is not to be found in a conglomeration of large lymphatic glands pressing upon the ductus choledochus, but in a change in the walls of the vessels.

The Liver in Infectious Diseases. — A. MAFFUCCI and L. SIRLEO (*Cent. f. allg. Path. u. path. Anat.*, VI, 1895; ref. in *Cent. f. d. med. Wiss.*, 1895, XXXII, No. 48, p. 839)

After MAFFUCCI had shown that the liver of the embryo is capable of destroying, or at least of attenuating, microbes, and that the leucocytes, endothelial cells of the vessels, red blood-corpuscles, and liver cells are able to take up and destroy the microbes of chicken cholera and chicken tuberculosis, the authors undertook the same experiments upon adult rabbits by means of inoculation of anthrax and tuberculosis into the vena mesenterica.

Rabbits inoculated in the vena mesenterica with anthrax lived much longer than control animals inoculated in the jugular vein. Leucocytes and endothelial cells take part in the reparative process in anthrax infection of the liver. One minute after infection the bacilli have been taken up and partially altered by the leucocytes and vascular endothelia of the liver. After destruction of the bacilli the leucocytes reappear in the general circulation. Rabbits which survived infection with anthrax, and died 26 days to 3 months after inoculation, showed fatty degeneration of the liver cells, dilatation of the liver capillaries, with cloudy, swollen endothelia, and alterations in the spleen, lungs, and kidneys.

After introduction of half a cubic centimeter of a tubercle-bacilli culture in bouillon into the vena mesenterica of a rabbit, guinea-pigs inoculated with the liver of these rabbits die of tuberculosis if the rabbits have not lived beyond the twenty-third day. If the rabbits live longer, the guinea-pigs die of marasmus, or only acquire tuberculous abscesses in the lymph glands. Here, also, the leucocytes and endothelial cells manifest the most decided phagocytic powers. The tubercles undergo cicatrization rather than caseation.

Therefore, from the embryo to the adult, the liver is the organ which best combats infections, not as the result of specific cellular elements, but by virtue of a structure adapted to the retention of the leucocytes containing the microbes. Destruction takes place through the agency of micro- and macrophagocytes. The microbes reaching the fetus through the placenta are destroyed in the liver. Tubercle-bacilli do not find a favorable medium in the liver, and are destroyed; the tubercle itself cicatrizes. The toxic substances liberated in the liver by destruction of the microbes are alike injurious to the embryo and the adult animal. The increase in volume of the liver in infectious diseases is dependent upon the alterations attendant upon the destruction of microbes within this organ.

Septic Tonsillitis an Acute Specific Disease. — STUART A. TIDEY (*The Lancet*, II, 1895)

Septic tonsillitis is defined by the author as an acute specific disease characterized by inflammation of the tonsils and fauces, due to the inoculation of a specific poison and accompanied by a general toxemic fever, the result of absorption at the seat of inoculation. As to its etiology, individual predisposing causes are constipation and a tendency to inflammatory affections of the fauces. Children and

adults are equally affected. Newcomers in an infected locality are more liable to contract the disease than the residents are. The origin of the specific poison, in the author's experience, has been intimately connected with defective sanitation, particularly inadequate flushing of sewers.

Dr. T. believes that the disease is directly transferable from person to person.

Local symptoms consist of pain commencing at the seat of inoculation, generally one tonsil, and rapidly involves the entire fauces, causing dysphagia; the pain is frequently accompanied by a pricking and burning sensation of the soft palate.

General symptoms consist of headache, pains in back and limbs, prostration, and constipation. The local signs include enlargement of one or both tonsils, with infiltration of the soft palate and uvula and extension into the naso-pharynx. The fauces are uniformly bright-red at first, then a rapid ulceration takes place at the points of maximum tension of the tonsils. The resulting ulcers form white patches of greater or less extent, sometimes involving the pillars of the fauces and soft palate. There is a copious secretion of mucus and muco-pus from the tonsils and naso-pharynx. Fever is of sudden onset; temperature rising on the first or second day to its maximum, reaching the normal within a week, often falling on the fifth or sixth day to sub-normal. Dr. T. has never seen the disease to cause any untoward result or to be followed by paralysis. The nearest allies of septic tonsillitis are scarlet fever and diphtheria; from the former it is distinguished by absence of rash and desquamation and by its more benign and rapid course. From the latter by its sudden onset, by the absence of false membrane or of marked toxic depression in spite of the severe local inflammation, and by its more rapid and benignant course and the absence of paralytic sequelae.

Treatment must be both local and general, while hygienic surroundings and a nutritious dietary are essential. Recovery is greatly hastened by frequent cleansing of the fauces and naso-pharynx with antiseptic applications. If this is omitted or the patient comes late under observation, there is great enlargement of the submaxillary glands leading to suppuration; moreover, there is a prolongation of all the painful train of symptoms. It is the author's custom to order a thorough application to the entire fauces every two or three hours, by means of a camel-hair brush, of glycerinum acidi carbolici and glycerinum acidi tannici of each 1 dr., water to 1 oz.; or listerine, 1 dr., water to 1 oz. Each application procures a free discharge of irritating mucus, and results in immediate relief to the patient. Mechanical irritation of the back of the tongue and fauces is of service by causing retching. Also mechanically compressing the tonsils and so aid the expulsion of peccant matter. General treatment consists of early evacuation of the bowels, followed by the exhibition of a daily morning saline aperient, which secures increased comfort to the patient and enables him to take iron and tonics without inconvenience. Dr. T. does not advocate the use of the coal-tar antipyretics except an initial dose of phenacetin in the case of a robust patient. Sodium salicylate is useful where a rheumatic diathesis exists. Bitters, mineral acids, bark, and iron will be difficult to improve upon in the treatment of this affection, Dr. T. says, until advancing knowledge places at our disposal a complete set of specific antitoxins. Then only will the importance of differential diagnosis outweigh that of expectant attention in the treatment of febrile disease.

SURGERY

OPHTHALMOLOGY, OTOTOLOGY, RHINOLOGY,
LARYNGOLOGY, DERMATOLOGY, ORTHO-
PEDIC AND GENITO-URINARY SURGERY

Department Editor
SAMUEL LLOYD, M.D.

GENERAL, ORTHOPEDIC, AND GENITO- URINARY SURGERY

In charge of B. FAROUHAR CURTIS, M.D., T. HALSTED
MYERS, M.D., WILLIAM B. COLEY, M.D., GEORGE
KNOWLES SWINBURNE, M.D., E. M. FOOTE, M.D.

The Danger of the Silk Ligature in Inflammation of the Omentum.—REYNIER (*Sem. méd.*, Oct. 26, 1895, p. 457)

REYNIER observed that in two cases in which he applied silk ligatures to omentum which was more or less adherent and congested during a herniotomy, abscesses developed some weeks later, in which the ligatures were found. He considers that the originally sterile silk was infected by the omentum, although the latter simply seemed adherent. MONOD, in the discussion, refused to allow this suggestion, claiming (with entire propriety) that the silk itself was probably not perfectly aseptic.

Resection of the Iliac Bone for Sarcoma.—

GIRARD (*Sem. méd.*, Oct. 30, 1895, p. 470)

GIRARD performed a disarticulation at the hip in a young girl, for a sarcoma of the upper part of the thigh, and when recurrence took place, nine months later, he removed the iliac bone of that side, obtaining a good result. In view of the slight amount of additional deformity and loss of function produced in his case, he recommends the removal of this bone with the lower extremity in cases similar to those in which the scapula is removed with the arm.

Treatment of Congenital Dislocation of the Hip.—CALOT (*Ann. d'Orthopédie*, VIII, No. 11, p. 340)

C. considers that there is no cure for these cases without operation upon the bones, but that in this way a cure can be effected. He has operated upon five cases of congenital dislocation and four cases of dislocation following hip disease, and has not lost any; therefore, he believes that the mortality has been overestimated. The second objection to the operation, that the orthopedic results are mediocre, and the limp is not diminished, he believes is the fault of the operator, and can be avoided, except: (1) where the head of the femur is too much atrophied or there is no neck of the femur, or (2) when the head is very much anteverted. In the first instance the head is too imperfectly fitted into the acetabulum to be held there with certainty; in the second condition the head cannot remain in the acetabulum unless the thigh is rotated inward very much, and this is a bad position for walking, and it is doubtful whether this position can be satisfactorily corrected by an osteotomy made several weeks after the reduction. But these conditions are exceptions and occur but in 4 or 5 per cent. of the cases. Besides, they can be recognized in advance, and contra-indicate the operation.

If there has been no relapse, an imperfection in the gait must be due to a poor position of the limb or impaired muscular control, and is due to faulty technique or lack of care afterward. In order to

preserve all the muscles the anterior incision between the gluteus medius and tensor vaginæ femoris must be employed. It is also necessary to employ massage and watch the position of the limb for months. The children will then after six, eight, or ten months walk almost perfectly if not quite so. CALOT says he has had no relapses in his cases.

The Treatment of Dislocation of the Peroneus-longus Tendon.—WALSHAM (*Brit. M. J.*, No. 1818, p. 1086)

Whether the dislocation occurs suddenly or gradually, the result is that the tendon during certain movements of the foot slips from its groove behind the external malleolus, over to the external surface of that process. This displacement gives rise to much lameness, pain, and inconvenience, and the routine treatment by pads and anklets has not been efficacious. Division of the tendon, with or without twisting of its proximal end for the purpose of creating adhesions to the sheath, cannot be recommended, as the function of the tendon is then lost, and the evils attending paralysis of the peroneus longus may be expected. WALSHAM advocates making a new sheath for the tendon, and records a successful result in a traumatic case, the patient being 24 years of age.

The operation consisted in making an incision about three inches in length over the tendon as it lies behind the external malleolus, exposing the malleolus and lower end of the fibula, and turning down from it a flap composed of the thickened fascia and underlying periosteum. The flap was then carried over the tendon and sutured to the fibrous tissues lying at the back of its normal groove. In the case in which this operation was performed, although some supuration occurred, the result was eminently satisfactory; the patient, who for four years previously had been lame and compelled to walk with a stick, and had been debarred from all active exercise, when last heard of was able to walk quite naturally and well. The tendon remained in its groove and could be felt sliding in it freely on the various movements of the foot.

Isolation of Inoperable Pyloric Strictures, with Remarks on Jejunostomy.—VON EISELSBERG, Utrecht (*Arch. f. klin. Chir.*, B. L, Heft 4, 919)

In cases where there is danger of perforation of the inoperable pyloric tumor, or in cases of severe hemorrhages, gastro-enterostomy will not be satisfactory, because after the operation the food is liable to produce the same conditions.

The above facts, as well as the observation in case of gastro-enterostomy, where, although the symptoms of the stenosis disappeared, the lancinating pains after meals persisted, led him to combine exclusion of the diseased pylorus with gastro-enterostomy.

This combination consists of a gastro-enterostomy with a proximal division of the tumor from the stomach and closure of the two incised wounds individually, thus shutting off the pylorus from the stomach.

The tumor is thus protected from contact with the gastric contents, without interfering with the outflow of bile.

The author performed this operation in two cases. Both were old men, who, in addition to the symptoms of obstruction, suffered intense pain after meals. The result was good in both cases; the pain disappeared immediately after the operation.

This combination of operations is indicated in cases where resection is impossible and hemorrhage or severe lancinating pains are the most prominent symptoms. Other indications are the danger of, or presence of, a perforation. It can be done in pyloric ulcerations as well.

It should not be performed in very feeble patients, or where the tumor is very extensive.

In cases of extensive infiltration of the gastric walls, where gastro-enterostomy is impossible, the choice lies between doing nothing and closing the abdomen,—which does not benefit the patient,—or jejunostomy.

The first duty of the surgeon in performing jejunostomy is to prevent, as far as possible, the outflow of intestinal contents into the stomach. The author performed this operation in three cases, applying Witzel's method of making the fistulæ of the stomach. In every case the highest part of the jejunum was selected for the fistula.

Jejunostomy indicated in cases where gastro-enterostomy is impossible (carcinoma of the entire stomach, carcinoma of pylorus and cardia) or in carcinoma of the œsophagus or severe burns of the stomach, where the stomach is too small to perform gastro-enterostomy.

The Relations of Contusion of the Intestine and General Suppurative Peritonitis.—SELIGER (*Aerzt. Prakt.*, Oct. 24, 1895, p. 609)

Peritonitis has been known to follow contusions of the abdomen in which no palpable injury to the intestine could be demonstrated, and some instances of suppuration of hematmata in the peritoneal cavity have been observed without apparent perforation of the bowel. Experiment has proven that peritonitis cannot be excited by introducing toxins, ferments, and even solid feces into the cavity, and the same is true of micro-organisms. But if the latter are introduced at the same time as a toxin, or ferment, and especially the solid feces, these latter will so affect the peritoneum that the bacteria will be able to excite inflammation. The bacteria cannot penetrate the wall of the bowel unless it has been subjected to marked tissue degeneration, and although they have been found in small quantities in the serum of the sac in strangulated hernia, they do not appear even there in large enough quantities to excite peritonitis. SELIGER thinks it more probable that, in cases of contusion of the intestine, the intestinal gases, toxins and ferments make their way through the injured bowel wall and prepare the peritoneum or any blood-clots which may exist in its cavity; while the bacteria, unable to penetrate entirely into the cavity, yet infect the submucous tissues, and thence find their way into the general circulation, and thus infect the peritoneum, as a *locus minoris resistentiæ*. This explains the rarity of those cases in which the inflammation does not develop until a week or more after the injury. SELIGER considers the streptococci as more important than the bacterium coli in the etiology of peritonitis, and claims that the only reason why it is not found so often as the B. coli in cultures made from the fluid is that it is so much less easy to cultivate than that vigorous bacterium.

Observations on the Union of Tendons.—TUBBY (*Med. Press*, 2947, p. 447)

T. divided the tendo Achillis of rabbits, and specimens were submitted for microscopical examination at the 3d, 7th, and 14th day, at the 4th, 5th, 8th,

9th, 13th, and 33d week, and at the end of the 13th month. It was shown that to secure firm union the blood must fill the tendon sheath and retain its tubular form. The tendon is not perfectly regenerated, even after thirteen months. The fibrous tissue was not arranged in parallel striæ and the square fixed tendon cells were not present.

At first the effusion consists of red blood-corpuscles, film, and leucocytes. The first two rapidly disappear; the latter more slowly, under the influence of the plasma cells, which migrate from the cut ends of the tendon and from the tendon sheath. These are frequently multi-nucleated, have several processes and are full of granular protoplasm. They seem to gradually absorb the leucocytes and take their place.

These plasma cells subsequently develop into fibrous tissue and form also the cell walls of temporary blood-vessels, which run through the scar tissue. The integrity of the tendon sheath is essential. In the first place it forms a bond of union between the cut ends of the tendon; in the next place lymph from its dilated vessels supplies nutriment to the effusion; and thirdly, the plasma cells, as previously mentioned, migrate from the vessels situated in it.

Laceration of the tendon sheath is likely to be followed by faulty union or adhesions. Primary union of tendon can only be obtained by bringing the two ends into accurate opposition. Should then gradual or immediate reposition of the deformed part be practiced after operation? If the tendon sheath be loose and vascular, as in the case of the tendo Achillis, both methods have the same good result. If, however, the sheath is feebly supplied with blood-vessels and firmly adherent to bone, as where the extensors of the thumb pass over the lower end of the radius, immediate reposition of the deformity will leave a gap in which the band of union is feeble, or may be absent. It is better in such cases to replace the part in the deformed position, so insuring a broad band of new tissue, which can be sufficiently stretched later.

Mr. MUIRHEAD LITTLE said he had of late years immediately corrected the deformity, but had had for years also very good results from the other method.

Statistical Results of 276 Cases of Strangulated Hernia.—HENGGELE (Beit. Zur. Klin. Chir., XV, No. 1, p. 1)

The author has given a very exhaustive study of 276 cases of strangulated hernia, treated from 1881 to 1894 at the Surgical Clinic at Zurich. There were 64 deaths, or a mortality of 23.2 per cent. Excluding 3 deaths in cases not operated upon, 13 in which artificial anus was made, 8 in cases where resection of intestine was performed, and 7 others in which complicated conditions existed, the mortality is reduced to 15.5 per cent.

24 deaths occurred in	116 men,	or 20.7%
40 "	" 160 women,	or 25 %
There were 111 inguinal hernia,	21 deaths,	18.9%
" " 159 femoral "	38 "	23.9%
" " 4 obturator "	4 "	100 %
" " 2 umbilical "	1 "	50 %

Grouped according to the contents of sac, of the 64 fatal cases, there were:

35 enterocèles	out of a total of	122
1 epiplocele	" "	13
21 entero-epiploceles	" "	71
3 contained the large intestine;		
2 " parts of the genital organs.		

The mortality, as regards the age of the patients, is worthy of note:

In 38 cases aged	1-30 years	the mortality was	10.5%
In 144 "	30-60 "	" "	21.5%
In 94 "	60-90 "	" "	30.8%

Analyzing the cases according to the technique observed, the results were as follows:

From 1881 to 1885 the carbolic-acid antiseptic period, the mortality was 38.15 per cent.; from 1885 to 1893, the corrosive-sublimate antiseptic period, the mortality was 21.1 per cent., while from 1893 to 1895, the aseptic period, it was 16.3 per cent.

A closer study of the cases, however, shows that the smallest mortality of any two years was 1890 to 1892, during the corrosive-sublimate period. During those years 42 cases were operated upon with only 2 deaths, or a mortality of only 4.7 per cent.

The causes of death were as follows:

Gangrene and peritonitis,	31 cases	. 48 per cent.
Laceration, torsion, injuries to intestines,	6 cases	. 9.3 per cent.
Hemorrhage, secondary,	4 cases	. 6.3 per cent.
Suppuration, septicæmia,	7 cases	. 10.9 per cent.
Heart failure, delirium tremens, thrombosis,	9 cases	. 14.1 per cent.
Unknown causes,	7 cases	. 10.9 per cent.

These statistics, compared with those of preantiseptic days, show great improvement. HENGGELE cites, among others:

BILLROTH, 164 cases, treated in Zürich and Vienna, mortality 50-51 per cent., and those of MALGANI mortality, 58 per cent.

In 1887 STROH collected 230 cases of herniotomy performed at the Royal Hospital of Copenhagen with a mortality of only 11 per cent. STROH emphasizes the fact that the custom there prevails to employ taxis but once, and for a very brief time. To employ taxis in a case of strangulation that has existed more than 24 hours is regarded as very dangerous.

The Etiology of Obstetrical Paralysis.—WALTON (Bost. Med. and Surg. Jour., Vol. CXXXIII, No. 15, p. 377)

The writer suggested that the suprascapular nerve was probably bruised independently against the suprascapular notch or the spine of the scapula, while the plexus below was bruised against the clavicle. The branch to the pectoralis major escaped through having no bony point of fixation. Probably rotation of the face away from the shoulder, which was caught at the brim of the pelvis, aided the stretching, as well as the drawing away of the head already described in this connection.

EYE AND EAR

In charge of WILLIAM OLIVER MOORE, M.D.

A Case of Living Larvæ in Normal Auditory Canals.—RICHARDSON (Arch. of Otol., XXIV, Nos. 3-4)

R. reports a case of a child four months old that had been delivered at full term by Caesarian section. The infant was delicate but not sick; it was noted to be peevish, and a small area of dry blood was noticed in the right auditory meatus. While inspecting this area the nurse saw what looked like a maggot protrude from and recede within the auditory canal. No pus or history of previous inflammation of the ear could be discovered. The auditory canal was swollen so that deep illumination was difficult. One living worm was extracted by a pair of forceps from the right auditory canal, and by a similar procedure two large larvæ were extracted from the left ear. Subsequent examinations of the ears showed auditory canals and membranes normal. The larvæ were fully developed, large and very active, and must have been in the child's ears for a period of three days or more. The depo-

sition of larvæ in normal ears is exceedingly rare. The manner by which the larvæ gained access to the auditory canal in this case can be explained by the possibility that the child fell asleep while nursing, thus allowing the bottle from which it was feeding to tilt over on its neck, with the end of the nipple projecting in the region of the auditory meatus. The dripping of the milk attracted the fly which deposited the larvæ in the auditory canals.

DERMATOLOGY

In charge of HENRY W. STELWAGON, M.D.

Hardening of the Epidermis.—CANTRELL (*Phil. Polyclinic*, 1895, IV, p. 398)

For the condition of hardening of the epidermis of the palms and soles, Dr. CANTRELL usually advises an ointment containing 1 dr. of salicylic acid to the ounce. This is to be kept in constant contact with the affected part for at least 30 hours, when the dermal curette is to be used to remove the hypertrophied tissue.

Urticaria Treatment.—(*Sem. méd.*, 1895, XV, p. 236)

To allay the itching provoked by urticaria C. BERLINER recommends the following: The affected parts are moistened with cold water and rubbed for 10 to 15 seconds with common salt, which has been placed upon the pulp of the index-finger, the finger having been previously moistened. There is at first a slight feeling of warmth, which is followed by a pleasing sensation of coolness and a notable diminution or cessation of the pruritus, after which the papules rapidly disappear. A pomade may then be applied, as oxide of zinc, or of rice, or starch. When the eruption is very extensive it is thought best to attack one part at a time. Proper internal medication is also to be carried out. Tepid baths may be employed.

Lichen Planus of Bullous Form.—LEREDDE (*Ann. d. Derm. et Syph.*, 1895, VI, 637)

The author in discussing the etiology of the disease cites a case of lichen planus in an anemic, hysterical woman 48 years of age, who presented the lesions in bullous form. Added to the bullæ there were present large violaceous plaques upon the abdomen. The patient had not menstruated in twenty years. It is suggested that the disease may be caused by changes in the blood. It is questioned if they are caused by the nervous disorders which antedate the cutaneous lesions. L. considers that the greater part of the lesions in lichen planus is not apparent and wishes to modify the statement which has been made, that pruritus antedates the cutaneous lesions, stating that it does precede the apparent lesion. It is suggested that there may be some chemical transformation in the blood. At any rate it is a universal disease of the skin and mucous membranes.

Scabies.—(*Therapy*, 1895, I, p. 55)

Dr. Ohmann-Dumesnil advocates the treatment given below in scabies:

- | | |
|--------------------------------|------------|
| (1) Acid. Muriat. Dil. | 1 oz. |
| Aq. | 4 oz. |
| (2) Natri Hyposulph | 4 oz. |
| Aq. | q. s. sat. |

Apply No. 2 at night to the affected parts and put on clean underwear. Upon arising the next morning apply No. 1. No. 2 should be allowed to dry without removing any portion. As soon as No. 1 is applied it precipitates the sulphur in No. 2, and thus we have this drug in a finely divided state, occupying every fissure. One treatment generally suffices.

OBSTETRICS; GYNECOLOGY; PEDIATRICS

Department Editor

THOMAS S. SOUTHWORTH, M.D.

Collaborators

GEORGE G. WARD, Jr., M.D., GEORGE R. WHITE, M.D.,
EDWARD N. LIELL, M.D., WILLIAM B. NOYES, M.D.

The Local Treatment of Pruritus Ani Caused by Oxyuris Vermicularis.—LOUIS H. ADLER, JR. (*Phil. Polyclinic*, No. 49, 1895)

The destruction of the worms and the relief of any cutaneous inflammation about the anus, which their presence has occasioned, will materially assist the cure of the pruritus. In order to destroy the worms it is not sufficient to rely entirely on rectal medication, such as enemata of lime water, weak solutions of quinine (20 grns. to the pint of water), or of corrosive sublimate solutions (1 to 4000); for these only accomplish the destruction of the parasites in the rectum. In addition, it is essential, for their complete eradication, to add internal medication, so as to reach the seat of their propagation in the small intestine. The best drugs are moderate doses of santonin, aloes, or asafetida, followed every other day with the employment of the Hunyadi Janos water, or, in the case of children, with the solution of magnesium citrate.

A word of caution may be here offered of the danger of reinfection, which is especially liable to occur in children from the habit of biting the nails after scratching the anus. In this manner the parasites or their ova are carried into the mouth and become a nucleus for a fresh lot of thread-worms.

Rickets.—KETCH, LEE, and WILLARD (*Trans. Amer. Orthopedic Assn.*, Vol. VII)

The principal manifestations of rickets are in the nervous and osseous tissues. During the first two or three months a rachitic child may be healthy, robust, or excessively fat. It will generally show intestinal indigestion, as shown by frequent constipation or diarrhea, with occasional colic and tumid abdomen. Dentition is retarded. Nervous irritability at first shows itself by restlessness at night, later by fretfulness, tossing and rolling the head, apathy, or even convulsions, are marked. Tetany and laryngismus stridulous are not infrequent.

Implication of the vaso-motor nerves is indicated by profuse sweating at night, and enlargement of veins of the head and neck.

General hyperesthesia, tenderness in joints, and even paralysis may exist caused by nerve starvation. There are trophic changes in the bones, such as cranio-tabes, undue patency of fontanelles and sutures, delayed or irregular dentition, enlargement of epiphyses, softening of shafts of the long bones with resulting rachitic deformities—bow legs, knock-knees, flat foot, pelvic, and thoracic malformations.

In early stages, constitutional treatment, massage, phosphorus, cod-liver oil and iron, and correct feeding are curative.

Later, for correction of deformities, resort is necessary to (1) mechanical appliances, (2) manual immediate rectification, (3) osteotomy or (4) osteolysis.

In young children, forcible, manual straightening may be employed, with due care not to injure the epiphyses. Subcutaneous osteotomy, by means of an osteotome, is to be preferred. MacEwen's is the best operation. If carefully performed, neither drainage or removal of a wedge of bone is necessary.

A New and Sanitary Nursing Device.—WM. M. DECKER (*N. Y. Med. Times*, Nov., 1895)

There are in general use two kinds of nursing-bottles: one with a tube entering the bottle which is emptied entirely by suction without tipping the bottle; the other, generally known as a gravity device, is emptied only by raising the base of the receptacle. Both have bottles which are more or less difficult to clean. The nipples also in ordinary use are objectionable, because they cannot be turned inside out, and because they are too long and do not fit the mouth of the infant.

The nursing-bottles with long rubber tubes are positive death-traps to young infants, because the tube can never be cleaned properly.

So-called "air-vent" nursing-bottles are objectionable, because they feed altogether too rapidly, and because they have complicated nipples of excessive length.

The author's nursing device is made in two parts. There is a glass cell receptacle which is open, cylindrical in form, with uncontracted outlet, making it as large at the mouth as at any other part, with no angles or grooves to collect refuse material. It has a graduated scale to estimate the quantity of milk taken. There is an elastic breast nipple, in form like a woman's breast, with a short nipple continuous with the breast, which discharges the milk in the forward portion of the buccal cavity instead of directly down the throat. It does this far more slowly than the common nursing-bottle.

This breast nipple is reversible, and can be easily and thoroughly cleaned inside as well as out. It is non-collapsible, there is a metallic holder to use in sterilizing the bottle and its contents. The breast nipple fits tightly over a flange at the mouth of the bottle, closing it and permitting both gravity and suction to empty it.

Vaginal Section and Drainage in Pelvic Inflammations, with an especial view to the preservation of all organs.—A. W. ABBOTT (*Northwest. Lancet*, Vol. XV, No. 24, p. 462)

The author believes that a vaginal operation having for its object the opening and draining of tubes and all pus cavities, and without the removal of any of the organs, has a hopeful future. He does not favor vaginal hysterectomy for such conditions where complications do not exist. A weighty objection to abdominal section, as compared with vaginal, is the reluctant consent of the patient to the former. The simple cleansing and drainage through a vaginal incision is in fact a conservative measure, and more or less free from danger, accompanied usually by no perceptible shock and but slight rise in temperature. An important point is that it can be adopted and save life when the patient is in very low condition; the operation, too, can be rapidly performed, the patient being under the anesthetic but a very short time. There is little or no handling of the intestines, and thus no paralysis. The time of convalescence is considerably shortened. The immediate results of the vaginal operation for the above conditions are excellent, although to determine the ultimate perfect recovery and liability to recurrence it must be frankly admitted that more time is needed.

If there be more than one abscess present each can be followed up, opened, irrigated and drained by means of gauze. Curettage and drainage of the uterus can be done, if need be, at the same sitting.

SOCIETY MEETINGS

THE HOSPITAL GRADUATES' CLUB

January 23, 1896

Dr. CHARLES H. KNIGHT, President

Intracranial Hemorrhage

Dr. THEODORE DUNHAM read the paper. See page 244.

Discussion

Dr. ELLSWORTH ELIOT, Jr., said: The general subject of intracranial hemorrhage is a very interesting one. It is interesting not only in itself, but also from a diagnostic and therapeutic standpoint. It makes a great difference as to the seat of the hemorrhage—whether it is between the skull and dura, beneath the pia, or in the substance of the brain itself. If hemorrhage is between or beneath the membranes, operation is advisable; and this is also true when it is located in the brain, and the latter is not extensively destroyed. He recalled several cases he had seen in service at the Presbyterian Hospital, which resulted favorably. One of these, a young man suffering from a pistol wound, the bullet entering beneath the orbit and penetrating to the cranial cavity. There were nose-bleed, exophthalmos, and ecchymosis around the orbit. Brain substance oozed through the wound and nostrils. The amount of compression was so great that operation was considered advisable and performed. When the dura was exposed over the middle meningeal artery, it bulged into the operation wound, was tense and bluish in color. When incised, the brain substance protruded. A large amount of blood escaped. Several bleeding points were found and ligated. Flaps were replaced, and the case went on to recovery. In another case of fracture of the base of the skull, through the middle fossa, the patient was unconscious, pulse increased and respiration so poor that it had to be kept up for 17 hours by means of artificial respiration; at the end of which time death took place from cardiac failure.

At the operation, shortly after his admission to the hospital, clotted blood was found beneath and external to the dura. As soon as the dura was exposed the pulse improved, and when incised pulse became rapid. He did not remember ever to have seen a case where blood had gravitated so that clear serum only remained. The great amount of fluid in the case reported by Dr. DUNHAM he thought might be due to increased amount of cerebro-spinal fluid, and he would ask whether an analysis for sugar in the fluid had been made to determine this point. Many cases become infectious, but even these may recover. If active compression was present, associated with unconsciousness and slow pulse, he thought it eminently proper to at once open the skull. It can do no harm to relieve compression. If destruction of brain substance is not too great recovery may take place.

Dr. J. A. BLAKE said he could hardly understand how fluid of such a nature as was reported in the case of Dr. DUNHAM could be accounted for by simple collection of blood. Whether such a collection could occur as a result of edema he had never learned. When compression is present, and there is any certainty that the collection of fluid can be reached by operation, he thought this procedure could be undertaken. He further thought it very strange that there should be so large an accumulation of fluid without fracture, as stated in the case reported in the paper of the evening, and he would

ask Dr. DUNHAM to give further explanation upon this point.

Dr. G. K. SWINBURNE recalled two cases of bullet wounds of the skull and brain while interne at Chambers Street Hospital (Dr. E. B. DENCH was house surgeon). The first was a man. At the time of examination there was complete paralysis of one side of the body, profound coma, pulse was rather rapid and feeble. It was decided to operate immediately. On trephining a large clot beneath the dura was turned out and two bleeding points were found—one in the pia, the other in the dura—which were ligated. The bullet was not sought for. In a few days the patient was perfectly conscious. Cerebral hernia developed, but the wound gradually healed. Whatever the patient's previous mental condition might have been, afterwards he was subject to violent outbreaks of temper, out of all proportion to the cause, although he was otherwise intelligent. In the second case the conditions were exactly similar. Search was made for the bullet, but patient died in two hours after he left the operation table.

Dr. ALEX. DUANE spoke of a case of pistol wound of the head and brain in which the bullet was not found. Asphasia was present and lasted for four weeks, when this symptom gradually disappeared. No meningitis or other complications occurred. Patient finally recovered.

Dr. A. H. ELY spoke of a recent case of fracture of the base of the skull, in a boy, in which an immense amount of cerebro-spinal fluid flowed from the left ear, continuing for about five days. Reflexes not disturbed. There was no evidence of compression or motor disturbance during a period of three weeks. Then there was retention of urine. The most important point in the case was the extreme and continued high temperature, ranging from 103 to 105½, and lasting for two weeks. The surface of the skin was hot and dry, as in a case of insolation; no moisture at any time. Regarding the mental condition, he said the patient could at first be aroused to answer questions. During the second week he sank into coma which lasted for 20 hours, when consciousness was again restored. He did not think operation was indicated in the case. Patient subsequently relapsed into profound coma; pulse was rapid all the time. There was no evidence of meningeal trouble. The high temperature, he thought, was due to some disturbance in the vasomotor system and of the heat centers. The patient finally regained consciousness—was rational. At the present time temperature 100½, pulse 100, respirations normal. Prognosis for recovery is, he thought, good.

Dr. JOHN B. WALKER considered a case similar to that spoken of by Dr. ELY. A boy, æt. 16, while playing with a pistol which he did not know was loaded, accidentally shot himself. The bullet penetrated the right eye. Pulse and temperature were normal. Probe entered the wound for a distance of more than four inches, but the bullet was not located. As the patient did not appear to suffer at the time of examination, he was left until the next day, when symptoms of compression developed. Probe entered nine inches and touched the under surface of the skull, where bullet seemed to be lodged. Scalp was shaved and skull trephined. As soon as dura was incised a large quantity of blood escaped. Eye was completely disorganized, and was therefore removed along with a few small fragments of brain tissue. Wound was packed with gauze, and patient put to bed without manifesting any marked symptoms of shock. The boy subsequently recovered.

Dr. DUNHAM, in closing the discussion, said, in reply to Dr. ELIOT's question, that no examination of the fluid was made. It showed no sign of being stained with blood. It was of a yellowish color and perfectly clear, like hydrocele fluid. He said he was unable to determine the source of the fluid, and had hoped that the discussion would throw light on this point. Possibly hemorrhage might account for it. There was no evidence of any injury to the dura; no clot was observed. He should judge about six ounces of fluid had accumulated. Possibly as a result of contrecoup, hemorrhage at the base of the brain may have taken place, and the serum from the clot worked its way upwards; or edema might have played a part in its production. In a case where there was fracture through the petrous portion of the temporal bone and thence a linear fracture extending into the frontal bone, with considerable damage to the brain substance, he had at autopsy found numerous hemorrhages dotting the surface of the temporal lobe of the opposite side, and the brain tissue there was somewhat softened. Perhaps such a condition would give rise to a serous effusion comparatively free from corpuscular elements.

NEW YORK ACADEMY OF MEDICINE

SECTION ON OBSTETRICS AND GYNECOLOGY

January 23, 1896

W. R. PRYOR, M.D., Chairman

Extra-uterine Pregnancy; Vaginal Operation

Dr. S. MARX: I desire to report two cases of extra-uterine pregnancy characterized by an absence of all symptoms. The diagnosis was made on the irregular bleedings. Mrs. H—, 31 para, having always had good health previously, was attacked suddenly one evening with a return of the regular menstrual flow. She suffered from intense pelvic pain and became faint. She was treated by the family physician for an acute peritonitis. The bleeding continued irregularly for three weeks without colicky pains. My examination showed some tumefaction present in the right pelvic space, but there was no tumor. The diagnosis was made of probable extra-uterine fetation, and an exploratory operation advised. This was done through the vagina, and an enormous amount of blood and old clots escaped from the peritoneal cavity. At the time of the operation the patient's pulse was 68, full and strong, and the temperature was normal. In delivering the tube and sac there was a profuse hemorrhage, so that the abdomen was quickly opened from above by me, and Dr. GRANDIN, who assisted me, seized a large uterine vessel and tied it. Three hours after operation she had a pulse of 160, but in the absence of other symptoms the diagnosis was delayed shock. She made a good recovery. Where you can exclude hemorrhage, I know of nothing better than nitroglycerin for the treatment of shock. It should be given in doses of $\frac{1}{15}$ of a grain every hour, combined with strychnine $\frac{1}{30}$ to $\frac{1}{20}$ of a grain every two hours. Where there is hemorrhage, however, the use of nitroglycerin is dangerous, causing the patient to bleed into her own vessels. I have known this in one instance to nearly cause death.

Dermoid Cyst Complicating Uterine Pregnancy Mistaken for Ectopic Pregnancy

Dr. H. J. GARRIGUES: I have here two dermoid cysts, but the smaller one alone is of special pathological interest. It consists of two parts, the one

a dermoid cyst, and the other a corpus luteum in which is a central cyst. From a diagnostic standpoint the case presents great interest. The patient was sent to me by another physician with a diagnosis of extra-uterine pregnancy. After careful examination I came to the same conclusion. I thought even I felt the pelvic end of the fetus, two bony masses in the cyst simulating the tuberosities of the ischium, and I decided to operate. At the examination I felt what I supposed to be a small uterus, but subsequently I found that what I had felt was only a part of the uterus. The only point against the diagnosis of ectopic gestation was that the tumor was larger than it should have been in view of the fact that menstruation had been absent only three months; but that was easily accounted for by supposing she had menstruated once or twice after conception. When the abdomen was opened, I found, not an ectopic gestation, but a uterine gestation complicated with a double dermoid ovarian cyst. Twelve days later she aborted. The ovum was easily extracted from the vagina with two fingers; nevertheless I had her etherized, and removed at least four times as much tissue. If I had not done this, all this tissue would have had to be thrown off at great risk to the patient.

Dr. H. N. VINEBERG: I feel that I cannot let one remark of Dr. MARX go unchallenged; *i.e.*, that irregular hemorrhages are pathognomonic of ectopic gestation. It is a mistake, in my opinion, to elevate any one symptom to such an important position. This symptom may not be present in a great many cases. I should also like to call attention to the fact that after vaginal section it is a risk to allow the patients to get up as soon as they feel well enough to do so—say on the sixth or ninth day. In one of my cases there was a slight exudate as a result of this. I think the patient should be kept in bed almost as long as after an abdominal operation.

Symphysiotomy; its After-effects; with a Description of a New Method

Dr. EDWARD A. AYERS: Before reading my paper I desire to show some patients. First, I wish to exhibit these twins, which are the only twins delivered by symphysiotomy that have lived. They were delivered on December 15, 1895. The mother and both children are doing well. The bi-parietal diameters of both babies were $4\frac{1}{2}$ in. I wish to place on record four operations and the methods employed in them.

CASE I.—Mrs. B., whose first-born was delivered by forceps, and the second by craniotomy, came to the Mothers' and Babies' Hospital on December 15, 1894, after having been 24 hours in labor. The right shoulder presented, dorsum anterior, and the cord was lying in front. After a failure with forceps, symphysiotomy was performed, and a separation of 1 in. secured. The pulsation in the cord having ceased, craniotomy was performed. There was a conjugata vera of $3\frac{1}{4}$ in. Recovery was most satisfactory.

CASE II.—Mrs. R., a patient of Dr. E. A. TUCKER, was operated upon on March 2, 1895. The true conjugate measured $3\frac{1}{8}$ in. A separation of $2\frac{1}{4}$ in. was secured. During the traction of the forceps the fetal heart was heard two minutes before delivery; but the child, a male weighing 9 lb. 7 oz., was born dead. I think it would have been better if podalic version had been performed.

CASE III.—A primipara, 18 years of age, at full term, was operated upon in the hospital on December 12, 1895. She had a pendulous abdomen and a funnel-shaped, generally contracted pelvis. The

conjugata vera was 4 in., and the chief contraction was in the transverse diameter. A separation of $2\frac{1}{4}$ in. ensued. Twins, one male and the other female, were delivered. Both are now living, as you have seen. The boy weighed 6 lb. 10 oz., and the girl 7 lb. 4 oz.

CASE IV.—L. G., 24 years of age, a primipara, was brought to the hospital on December 16, 1895, having been 3 days in labor. The true conjugate was 3 in. A separation of $2\frac{1}{8}$ in. occurred during forceps delivery. The child weighed 7 lb., and is in fine condition to-day. The mother's recovery was uneventful.

The method employed in these cases was as follows: The patient being brought to the edge of the table with the thighs flexed and the abdomen and vagina and vulva properly cleansed, a small male urethral sound was used to hold the urethra and bladder to the left. The labia minora and clitoris were drawn up to the left. The operator's finger was then inserted into the vagina, pressed against the symphysis up to the top of the joint, and a small incision was made about half an inch below the clitoris. A curved, probe-pointed bistoury was next passed through until it was felt by the tip of the left index finger. The blade then lay under the vessels of the clitoris, so that it was not necessary to wound any arteries of importance. The left finger being in close contact with the posterior portion of the joint, and the finger holding the bistoury being close in front, the joint was easily found. The bistoury was then worked down carefully through the symphysis, the operator's finger being the guide to the separation. The curved, probe-pointed bistoury is not necessary, and its backward curve is somewhat objectionable. A slender, small tenotomy knife can be used much more easily, beginning the incision near the middle of the joint, and working upward and downward against the anterior surface. The urethra and bladder can be kept out of danger by the guiding finger. This operation has all the advantages of the open method, and avoids all the vessels of the clitoris. If these are torn during delivery they will not bleed so readily as if cut at first. There was no troublesome hemorrhage in any of my cases. It is easy to check the hemorrhage with gauze and the fingers. I should prefer Pinard's method in impacted posterior occipital and face presentations.

In the after-treatment I have lightly packed the wound with iodoform gauze and applied a gauze dressing over the vulva, and strapped the pelvis over the mons veneris with plaster strips. The gauze is removed in 36 hours, and the vagina kept clean by irrigations. In no case was catheterization required more than twice. In one case I stitched the perineum with silkworm-gut, but this is objectionable on account of the disturbance to the joint in removing it. I do not wish for personal credit for originality in this method so much as I desire to establish the fact that there is a better method than those of MORRISANI and PINARD. Some of the steps described have been done before, and others have been suggested. Dr. ROBERT L. DICKINSON reported an operation done by him in 1893, which was very similar to the one described now, except that his was an open one. Dr. DAWBARN claims originality for three suggestions, *viz.*: (1) Distending the bladder with fluid to prevent the falling of the bladder between the divided bones; (2) securing coaptation by adhesive straps from trochanter to trochanter; and (3) the use of a special cotbed by which the weight of the patient presses the trochanters together and favors union.

The joints in all four cases reported were firmly united; and this, too, notwithstanding the fact that one woman tore off the adhesive plasters fifteen hours after operation, and remained unbandaged for two and a half hours. Not a case has been reported by American operators of bad union, or union that disabled the patient; hence, considering the variety of methods employed, there must be an innate tendency in the symphysis to good union. I think that careful bandaging and prolonged stay in bed are important points in securing good union.

How can we minimize the dangers after section has been made? The cervix is seldom sufficiently dilated to admit of the extraction of the head without dragging the soft parts down into the true pelvis. Softening of the cervix by natural labor should be secured if possible before operation, if the amnion has not ruptured, and then dilatation with Barnes's bags should be employed sufficiently to cause retraction of the cervix. I have usually found the bladder higher up than BRAUN and BARBOUR have put it. The normal forces that direct the occiput may be so inefficient when separation is secured that the head may fail to rotate normally; then we must use the forceps.

Conclusions: (1) Secure full dilatation of the cervix, if possible, without risk to the child; (2) make the initial incision a little above the sub-pubic arch; (3) have the urethra and bladder held to one side with a sound; (4) introduce the index-finger into the vagina against the posterior groove or ridge of the joint up to the top; (5) pass a narrow scalpel up to half an inch of the top; (6) substitute a probe-pointed bistoury and work the blade through the joint downward until separation is felt by the posterior finger; (7) have the assistant press the mouth of the wound and tissues lying over the joint with a small piece of gauze; (8) deliver with forceps if possible, and refrain from suprapubic pressure, aiming to deliver the head without drawing down the soft parts; (9) pass a small strip of gauze into the pubic wound and another into the cervix, leaving both pieces free for easy removal; (10) dress the vulva with gauze; (11) remove all gauze after 36 hours, and irrigate vulva and vagina twice daily; and (12) attend to catheterization in person.

The selection of symphysiotomy in preference to Cesarean section depends upon whether we can deliver a living child by the former method. I have made a table of these cases done since 1886, when antiseptic surgery was well established, and in which the patients had not been longer in labor than twenty-four hours previous to symphysiotomy. This should give the intrinsic danger and results of the operation. The total number of cases was 110; the total number of maternal deaths was 5; the total number of children born, 111; the total number of children who died, 16; the average number of hours in labor, 16; the number of forceps deliveries was 80; the number of versions was 14; the number of deliveries by forceps and version was 4; the number not classified was 12; the number of fetal deaths with forceps was 7 out of 80; and the number of fetal deaths by version was 5 out of 14. Of the five maternal cases three would probably have been fatal in any event. As it now stands, the maternal mortality is about 4.5 per cent.

In response to letters sent out only a month ago to various American operators, I have received prompt and courteous and explicit replies from all operators on successful cases. The list represents 44 operators and 72 cases. The average length of time intervening between the date of operation and the last examination is 16½ months; the character

of the union in the pubic joint is described as "osseous" in 5, "fibrous" in 10, "good" in 16, "firm" in 26, and "perfect" in 5. Without exception the pubic joint is in satisfactory union to-day. I have been informed that there are two unreported cases in this city with very unsatisfactory union of the joint. The list shows 44 without motion, 19 with slight motion, 2 with one-fourth of an inch motion, one with half an inch, and none with persistent effect on locomotion. Pain in the sacro-iliac region has been reported in 3; it was temporary in all. In three cases the bladder was irritable from four weeks to six months; in two the bladder was torn, one of which is now healed, and the other very nearly healed. In one the anterior wall of the vagina necrosed. In this case the child weighed 15½ lb. The symphysis is united in this case by fibrous tissue quite firmly, and the patient is now doing her work without trouble.

The relation of symphysiotomy to following labors has received attention. The joint has been found less mobile at the second operation, and the hemorrhage has been more troublesome and extraction more difficult. Dr. JOEL WILLIAMS was the first in this country to perform symphysiotomy, and his patient, a girl of 14, has since had four children. The difficulty in the first labor was thought to be the undeveloped state of the pelvis.

We must recognize that the mortality for the children will average well above 50 per cent. if we induce premature labor in preference to doing symphysiotomy. The maternal mortality from induced labor ranges from 2 to 5 per cent., and the mortality from symphysiotomy is twice as great; but when the operation becomes purely elective, the death-rate will be no higher than that of premature labor, or within 1 or 2 per cent. of it. This the records already show. Premature induced labor and Cesarean labor have both had sufficient elective work to give us a fair estimate of their mortality; this is hardly true as yet of symphysiotomy. The great danger in symphysiotomy is the delivery of the child after separation has ensued. Symphysiotomy is not running counter to nature. I find that in the monkey there is a provision by a hinge attachment of the ilia by which the sacral promontory may be practically made to disappear. In women it is the molding of the fetal head rather than the changes in the pelvis that must be considered, although the pelvis does expand slightly.

Dr. GARRIGUES: I have examined the mother of the twins, and find the pubic bones in apposition, but there is slight movement observable when the woman rocks from one side to the other. The result is very good.

Dr. J. CLIFTON EDGAR: There is about the usual motion to be expected at this time after the operation. The separation I should judge to be about a quarter of an inch.

Regarding the method of performing symphysiotomy, I would say that as I have assisted Dr. AYERS in two of his operations, I have had an opportunity to compare his method with that adopted by MORRISANI and PINARD. After seeing these two cases I must say that I am more than favorably impressed with them. The incision is extremely small. I should prefer it to the suprapubic method in most instances, as it is extremely simple and rapid. There was very little hemorrhage, and very little exposure of the wounded parts to the air. Of the twelve or fifteen symphysiotomies that I have seen, a large proportion of them were delivered by podalic version, although but a few were abnormal presentations. I feel convinced that

the after-effects depend largely on the amount of separation at the symphysis, thus influencing the sacro-iliac joints, and that this depends upon the mode of delivery. Podalic version appears to me to increase this separation more than the forceps. I think that the more we study the use of the forceps high up in the pelvis, the more we will use them. Four or five years ago I would not have attempted such high forceps operations, but having seen serious results from version I think that the forceps operation, in selected cases, is the better. It has been shown experimentally and clinically that if we get over 10 ctm. of separation at the pubes lacerations of vagina will begin, and there will be a weak sacro-iliac joint on each side, and this will ultimately affect the prognosis.

Dr. J. SPENCER BROWN, of Montclair, N. J.: My experience has been limited to two symphysiotomies on the same patient. I should think that the method of operating would depend largely upon the condition of the joint. If the joint were properly tilted, it would seem that Dr. Ayer's method would be the simple one. The method of delivery should depend entirely upon the position of the child in the pelvis, and the character of the pelvis. With a justo-minor pelvis I should prefer forceps, whereas in a simple flat pelvis I should prefer version. My second operation led me to believe that symphysiotomy is not one to be repeated several times on the same patient; that is, in cases where the conjugata vera is down to what is now considered the limit (7 ctm.), there was but slight separation of the bones, scant 2 in., due to loss of motion at the sacro-iliac joints. The upper portion of the joint showed fibrous union, and the lower portion osseous union. The amount of hemorrhage from the plexus of veins back of the joint was enormous in the second operation, whereas it was easily controlled in the first operation.

Dr. W. T. LUSK: I desire to call attention to certain points in the operation employed by PINARD, and based on the anatomical investigations of FARABEUF. I show you a diagram illustrating very clearly the gain in the dimensions of the pelvis from symphysiotomy. When the true conjugate is below $2\frac{1}{4}$ in., there is no doubt that it is much safer to perform Cesarean section. I show you FARABEUF's instruments for determining the conjugate, and also the bilateral diameter of the child's head. The diameter of the child's head can be safely reduced instrumentally only one-quarter of an inch. The same instrument FARABEUF uses for measuring the bilateral diameter of the child's head, and may likewise be employed as a lever for rotating the head down into the pelvis, using the promontory as a fulcrum, and lowering the handle of the instrument. In many cases in which we should be otherwise obliged to turn and deliver the child, by this leverage procedure we can bring the head down below the pelvic brim. Before making the incision it is well to determine by palpation the upper and lower borders of the symphysis, and mark them on the patient's skin with iodine. It should be remembered that there is a narrow sulcus in front of the pubes, between two bony ridges to which the adductor muscles are attached, which corresponds to the median line. The clitoris should be seized with the thumb and finger, to place the suspensory ligament on the stretch. The ligament should then be divided and the clitoris with its vessels should be pulled down so as to avoid undue hemorrhage. The finger should be passed down behind the symphysis close to its posterior border. With the finger as a guide a blunt-pointed curved director, of which I show you the model, should be pushed up from below; all the

important vessels are kept out of the way of the knife. It is advised by FARABEUF to separate the bones at once forcibly so as to leave a space amounting to $2\frac{1}{4}$ in. anteriorly. If this is not done, there may be a sudden and excessive separation at this point. If the soft parts have been previously well prepared the natural forces may be sufficient to dilate them, but delivery by forceps will probably be required, and in doing this one must be extremely careful to restrain excessive separation of the pubic bones with a consequent laceration of the bladder and vagina. In a great many patients operated upon, the symphysis remains weak for a considerable time—perhaps for six months or a year. I think this can be largely prevented by the use of strong ligatures passed through the fibrous structures covering the symphysis. These structures are dense and are derived from the adductors and the recti. The bones must, of course, be brought into exact apposition, and the ligatures tied very firmly. If this is done, the union will be found very satisfactory. By specially devised beds the after-treatment is greatly simplified.

I think the statistics of the world over show that about 9 per cent. have proved fatal. The operators in Naples, Leipzig, and Paris, and a few in this country, have furnished the large proportion of the successful operations. While many symphysiotomies are extremely simple, there are others in which one requires a thorough anatomical knowledge of the parts involved.

Dr. R. H. M. DAWBARN: Early in January, 1894, I was called to Mrs. F. S—, by Drs. KERLEY and CARREAU. There had been, some years before, an instrumental labor and a still-birth. She had been this time in labor for 16 hours when I first saw her; the presentation was R. O. P.; the head low down and firmly jammed. The forceps had been repeatedly applied without success, and she had been under chloroform for a considerable time. She was in a condition of profound shock. The ischiatic spines and sacrum encroached greatly on the normal measurements of the lower straits. The true conjugate diameter was a little over 7 ctm. I first tried to change the presentation to R.O.A., but failing in this, symphysiotomy was promptly performed, using a large, curved blunt-pointed bistoury, and making a superficial cut about one-fourth of an inch long. Delivery by forceps was easily accomplished, there being a separation at the pubes of about $2\frac{1}{2}$ in. The patient lived only seven hours after delivery, dying of shock; as the symphysiotomy occupied only two minutes, and was associated with practically no hemorrhage, I cannot think this operation to blame at all. A large quantity of saline fluid was given subcutaneously, intra-vascularly, and by the bowel, but the improvement was only very temporary. I must say that the subcutaneous operation does not seem to be as surgical as the open method. I have done symphysiotomy on eleven cadavers, and have then carefully dissected this region, with the result of finding that only a few small capillaries have been divided. It seems to me that if, before bringing together the pubic bones, one distended the bladder with fluid through a catheter, it would effectually prevent the falling in of the bladder between the bones. I have found by experimentation on the cadaver that three broad strips of adhesive plaster applied across the front of the body from trochanter to trochanter effectually keep the pubic bones together.

Dr. R. A. MURRAY Regarding the comparative merits of the subcutaneous and the open method of operating, I would say that in the cases in which the Galbiatti knife has been employed there has been

more or less sepsis. I believe with Dr. Lusk that it is important to use a small knife. In the case cited by Dr. DAWBARN the operation was quite easy, because the obstruction was at the outlet, the joints had already been stretched and the head molded. In the cases which I have observed, the best results have been obtained by version; but the ideal results would be secured if delivery could be effected by nature. Where the head has been previously molded, I believe forceps are the best. If, however, the head is still at the superior strait, I believe version is better, and it will enable you to turn the head so as to have its longest diameter correspond with the longest diameter of the pelvis, and thus may save the child.

Dr. PHILANDER A. HARRIS, of Paterson, N. J.: I have used a canvas bandage about eight inches wide, extending downward from the crest of the ilium, and laced together over two round sticks in the median line in front. I employed this with great satisfaction on a very stout woman, and after a five-weeks' stay in bed, the union was exceedingly good. I think several straps with buckles would be more convenient than the lacing.

Dr. H. L. COLLYER: To have a living child we must delay interference as long as possible. The relation of the size of the child's head to the maternal pelvis is all-important in deciding as to the necessity for symphysiotomy. In some cases the suprapubic method will be infinitely easier than the subpubic method, although the latter has impressed me very favorably. The difficulties and dangers of symphysiotomy, it seems to me, have been exaggerated. The sudden and excessive separation of the bones will often cause an unpleasant amount of hemorrhage as well as injury to the sacral joints; therefore the thighs should be carefully supported. The subpubic method has the advantage over the suprapubic operation in offering better drainage. To keep the pubic bones together I have repeatedly advocated the use of a piece of webbing 2 in. wide fastened around the pelvis with a buckle which keeps the edges of the bone in perfect apposition. The less bandaging the easier it is to keep the patient clean. The mode of delivery must depend upon the exact condition present in the individual case.

Dr. FRANK D. GRAY, of Jersey City, N. J.: In doing a symphysiotomy I was struck with the importance of complete division of the subpubic ligament. My patient had been previously delivered of a living child without an operation, and I was on that account led to attempt to deliver without complete division of this ligament. During the delivery of the child by forceps the subpubic ligament suddenly snapped, and the vagina was consequently badly lacerated. I should prefer a strong bistoury to the Galbiatti knife. It would seem that with the tissues back of the joint guarded by the finger, there should be no occasion for the thorough division of the vascular tissues in front described by Dr. Lusk. During my temporary absence my patient was allowed to get up several times at about the end of the first two weeks, and although the pelvis was only supported by a stout binder the union was good.

Dr. AYERS: I think that a narrow-bladed knife should be used to make the initial incision into the symphysis, and then this incision should be completed, especially at the top of the symphysis, by the blunt bistoury. The operation I have described is much simpler and much less likely to cause accidents than the beautiful method described by Dr. Lusk. It does not seem to make much difference how these joints are treated after the operation; they have all got well, whether poorly bandaged

or not bandaged at all. Some insist upon the patient remaining in bed for five weeks, and others only three weeks; yet just as good results have been secured from the one plan as from the other.

GENERAL MEETING

February 6, 1896

WILLIAM M. POLK, M.D., Vice-President, in the Chair

Subphrenic Abscess

Dr. CARL BECK: Only a few years have elapsed since subphrenic abscess has claimed a place in medical literature. Von Volkmann, as early as 1879, showed that abscesses below the diaphragm could be reached and cured by the knife. From 1879 to 1890, only 28 operations were reported, while between 1890 and 1893, 32 operations were reported. The record has since risen to 179 cases. Subphrenic abscesses are divided into intraperitoneal and extraperitoneal. In the second variety, the abscess wall may not be formed in part of peritoneum. A characteristic feature of the extraperitoneal form is its greater tendency to perforate into the pleural cavity. Extraperitoneal abscesses are most frequently found on the right side, which is natural, as their source has been not infrequently traced to the ileo-cecal region. In subphrenic pyopneumothorax, on deep percussion, the lung gives resonance instead of liver dullness on the right side, and absence of respiratory murmur from the third rib downward. There is no vesicular element in the lower part of the right thorax, and succussion can be elicited by shaking the patient. The heart will be displaced to one side. Exploratory puncture reveals pus. The history is often an important guide as to the location of the abscess. There is no history of cough or expectoration in cases of subphrenic abscess. It is sometimes impossible to distinguish an encysted pleuritic effusion from a subphrenic abscess. The motions of the exploring needle introduced into the abscess have been regarded by FÜRBRINGER as diagnostic; but it cannot be said that the presence or absence of these motions are of diagnostic value, for the needle may be caught in the diaphragm, the function of which is greatly impaired in this condition. The usual aseptic precautions should be taken in performing exploratory puncture, and several punctures should be made if the first is negative. My experience leads me to the conclusion that the prognosis of subphrenic abscess, except that of malignant origin, depends almost entirely upon early diagnosis. I have lost none of the four cases upon which I have operated. This is due to the favorable etiology of these particular cases and the early date of the operation. The mortality of 50 per cent., as stated by MAYDL, is, however, much too high. Spontaneous perforation may take place, but this is rare. The presence of the pneumococcus in subphrenic abscess indicates a pneumonic origin. It should be remembered that in pyothorax the presence of this coccus indicates a more favorable prognosis than is usual in such cases. Early operative interference in cases of subphrenic abscess will surely very decidedly reduce the mortality. By far the greater number of subphrenic abscesses are the result of pathological processes in the stomach. Most of the cases point to simple ulcer of the stomach as the etiological factor. Subphrenic abscesses are more apt to arise from perforation of the cecum or ascending colon than from the ileum. It is not likely that typhoid fever ulcers are responsible for the de-

velopment of subphrenic abscesses. The echinococcus is, in rare instances, the cause. The anatomical relations of the kidneys gives them an important relation to these abscesses. The left kidney being at a higher level, subphrenic abscess from this source is more common on the left side. If the abscess occupies the whole anterior or posterior surface of the kidney, it is said that there are generally swelling, pain and tenderness, and edema of the abdomen; but in one of my cases scarcely any one of these local signs was present. There are some subphrenic abscesses of true thoracic origin. Of nine cases reported in literature, one case recovered spontaneously by perforation into the gut, one after surgical operation, and three died with, and four without, surgical interference. Wounds of the diaphragmatic space may occasionally produce subphrenic abscess. Such wounds are usually produced by bullets. Subphrenic abscess may originate from an abscess in an adjacent organ. In cases of subphrenic abscess perforating into the pleura, the symptoms are intense pain, rapidly developing dyspnea and collapse.

In the treatment of subphrenic abscess, a wide opening should be made; and this can, as a rule, be obtained by resorting to resection of a portion of a rib, as subphrenic abscess is generally within the extent of the ribs. In subphrenic abscess the aspirating power of the diaphragm is greatly impaired, and the diaphragm is pushed up so high as to have its summit often in permanent contact with the costal pleura. When alarming symptoms, due to pneumothorax occur after exposure of the pleural sac, the final incision may be deferred until the following day. I do not see, moreover, why the pleura should be more likely to become infected than any other part of the body. As a rule, I prefer to make the incision in the mid-axillary line between the eighth and tenth ribs.

I desire now to present this young man. He was seized on March 24th with nausea and vomiting and violent pain on the right side. This soon disappeared, only to return suddenly about three weeks afterwards. The temperature was 101° and the pulse very rapid. On May 3d, 1895, I first saw him. At this time there was great dyspnea, the respirations were 64, the right hypochondrium not protruding; no cough. There was complete dullness from the upper border of the fourth rib down to the line of the umbilicus. A similar condition prevailed in the axillary line. Auscultation revealed vesicular breathing, rough respiration and râles. A diagnosis of abscess was made, and its subphrenic location seemed probable because of the absence of respiratory symptoms. Exploratory puncture in the eighth intercostal space revealed the presence of pus. On May 4th, an incision was made (resection of 10th rib) under incomplete chloroform anesthesia, but the patient's condition became so bad that further operative measures were deferred until the next day. At that time the abscess was opened and drained.

Dr. R. F. WEIR: I can only speak on this subject from a comparatively limited experience, having only encountered five cases of subphrenic abscess. Four of these were acute conditions. Two of the acute cases arose from an appendicitis, which had traveled upward and expended its force between the liver and diaphragm.

The other two cases resulted from perforations of the stomach, and the accumulation was in the cavity of the lesser peritoneum. The fifth case was one of portal phlebitis, where the abscess was between the diaphragm and the liver, and was probably, to

some extent, in the liver also. In this last case, the relief was obtained by incision through the ribs at the lower margin, passing through the two layers of the diaphragm. By exploratory puncture it was found in this case that inspiration increased the outflow of fluid; the reverse condition would have obtained had the purulent accumulation been in the pleural cavity. This is a diagnostic point which has been much insisted upon. It has been suggested that if air emerged from the trocar puncture one could determine the outflow of air by a candle flame, or by putting the tube under water. We know that perforations of the stomach occur much more frequently than have been generally supposed; and hence, as this is a common cause of subphrenic abscess, it is likely that these abscesses often pass unrecognized.

Dr. E. G. JANEWAY: Cases of pus accumulations between the liver and diaphragm were seen and described long before these accumulations were described under the name of subphrenic abscess. The last four cases of subphrenic abscess that I have seen were operated upon. In cases of subphrenic pneumopyothorax coming under my observation I have noticed that by changing the position of the patient there would be a change of the line of flatness below the diaphragm, showing the mobility of the fluid, yet above there was good respiratory murmur. The first of these cases was one of subphrenic pyopneumothorax, resulting from appendicitis, seen with Dr. I. Adler. The diagnosis of pus and air between liver and diaphragm was made by the limitation of the succussion sound to the subdiaphragmatic area, and by the mobility of the flat and tympanitic areas limited in the same manner. The respiratory murmur above the diaphragmatic area was normal. A knowledge of cause was also helpful. Dr. W. T. Bull operated on this case. He made a first incision into this accumulation of pus, removing a piece of rib and stitching pleura before incising pus accumulation, in order to avoid pleural infection. Afterwards the pus accumulation in right iliac region was opened, and later pus also discharged per rectum. Death in this case resulted later from pyemia. Case has, I believe, been reported.

This indicated that the accumulation was not in the pleural cavity, but was limited by the diaphragmatic attachment. About two years ago I saw a case in which the diagnosis had been made, and the patient had been aspirated for empyema by one of our prominent diagnosticians. The man had entered the hospital with a diagnosis of empyema, and one which had already been aspirated. This subphrenic abscess was on the left side and operated on by Dr. FLÜHRER. Its origin was uncertain, and the patient died after some time. In another case, seen with Dr. J. E. KELLY, the accumulation of pus was also on the left side. In addition to this there was a bronchial type of breathing similar to that of pleurisy, which made me change the opinion that the pressure exerted from below the diaphragm, would not produce this variety of breathing. The abscess was opened from below the ribs, and after several attacks of sepsis the patient finally recovered. In another case, afterwards operated on by Dr. FOWLER, of Brooklyn, the diagnosis was made of subphrenic abscess. Ten years before this, this same lady had had an accumulation of pus with fever, and a prominent physician had diagnosticated empyema. No operation was done, and recovery took place by perforation through the lung. The recurrence of the symptoms after 10 years is of interest. I saw the case at this time, and came to the conclusion

that it was a subphrenic abscess, possibly due to an ulcer of the stomach. The urine was absolutely normal. There was abundant offensive expectoration. Dr. FOWLER operated upon this patient, but unfortunately the operation was followed by pneumonia. In addition to this there was another complication, viz., the abscess having been due to an ulcer of the stomach, the incision communicated with the stomach, and the gastric juice drained away through the wound. The patient died as a result of the pneumonia. Out of the four cases operated upon, only one has recovered; but I do not think that a study of these cases would show that these bad results were due to the operative interference.

Besides these operated cases, I have met two on the right side due to cancer of pylorus, with ulceration; one on the left side due to cancer of stomach, and another to ulcer of stomach. In addition, a case without ascertainable cause was seen many years since.

Dr. PARKER SYMS: My experience has been limited to three cases, all seen since last July. Two of them gave a direct history of trauma, and in one it was difficult to gain any data which would throw any light on the origin of the disease. These cases were all of the intraperitoneal variety, and two of them were seen in a late stage. One of these patients was a man of 76 years, who had a slight rise of temperature at the time of his admission. A large mass could be felt on the right side extending from the liver downward some inches. A large subphrenic abscess was discovered pointing high up in the loin. It was opened under cocaine, and about two quarts of pus were discharged. The origin of the disease could not be determined. Another patient, a woman, 31 years of age, stated that she had received an injury over the region of one kidney. On admission, there was a little pus in the urine. The other case was a boy of 8 years, who had recently received an injury on the right side. He had high temperature and chills, and was almost moribund at the time of admission. After stimulation, the abscess was opened and drained. In these late cases, it would seem to me better to treat the abscess by simple incision and drainage by means of a tube. All my cases recovered promptly.

Dr. S. J. MELTZER: Some time ago I examined the literature of this subject and collected 110 cases. The cases were classified according to sex, side where abscess was located, and primary causes. Of the 110 cases of subphrenic abscess 58 were men and 52 women. Five of the cases were bilateral, and of the remaining 105 the abscess was in 54 cases on the right side and in 51 cases on the left side. Of the five bilateral cases four were in women and one in a man. Of the 48 unilateral cases in women, 34 were on the left side and 14 on the right side. Of the 54 occurring in men, 41 were on the right side and 13 on the left side.

In 95 cases out of the 110 a definite primary cause was stated. In 32 cases gastric ulcer is given as the primary cause. Of these 32 cases 28 were women and 4 men. Of the 28 women, in 27 the abscess was on the left side and one was bilateral. Of the 4 cases in men, three were on the right and one on the left side. In contrast to gastric ulcer the abscesses due to other primary causes show a preference for men. In 7 cases of subphrenic abscess caused by duodenal ulcer, two occurred in women and five in men. In 13 cases due to appendicitis, 11 were men and 2 women. In 6 cases due to paranephritis, there were 5 men and one woman. With reference to the differential diagnosis between

empyema and subphrenic abscess, we have in the "diaphragm phenomenon" of LITTEN a new point. The shadow-like line moving across the chest, down and up, with each inspiration and expiration, represents, according to LITTEN, the movements of the diaphragm.

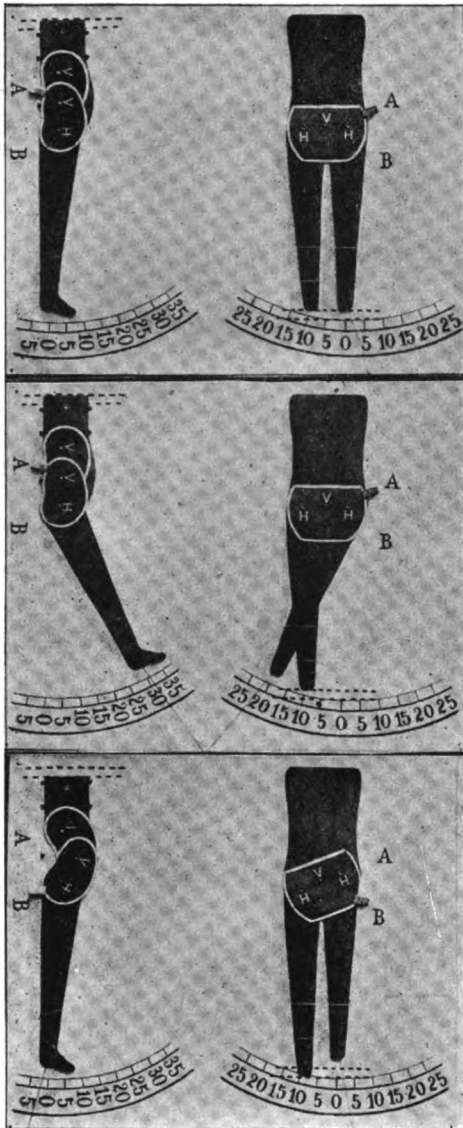
If the presence of a pus collection in the lower region of the thorax is once established, we have only to determine whether it is located above or below the line in question. Von PROCHASKA has very recently reported a case of subphrenic abscess which he indeed diagnosed by means of this "diaphragm phenomenon." However, its value will be limited to only a few exceptional cases; for, according to NOWACK, the diaphragm on the corresponding side is paralyzed in 70 per cent. of the cases, and in 25 per cent. its movements are very restricted. The same objection also applies to the diagnostic point just mentioned by Dr. WEIR—i.e., by the use of the manometric pressure. Theoretically it is correct that empyema will show a negative, and subphrenic abscess will show a positive pressure. However, this test was applied only a few weeks ago by Prof. MAYDL with the result that the subphrenic abscess has shown a negative manometric pressure on account of the paralysis of the diaphragm. With regard to the history of subphrenic abscesses it is to be mentioned that BARLOW was the first one to properly diagnose, *intra vitam*, an air-containing subphrenic abscess, an account of which is published in the London *Medical Gazette* for 1845; and that HILTON FAGGE collected 16 cases of subphrenic abscesses from Guy's Hospital Reports, and published them 6 years before the publication of LEYDEN's now famous article on "Pyo-pneumothorax Subphrenicus," which was based upon 10 cases, mostly collected from literature.

Dr. BECK: The method of determining whether or not the pressure is negative or positive, as described by Dr. WEIR, seems to me to be one of great practical value. I have no doubt that the high mortality in the cases reported by Dr. JANEWAY was due to the fact that proper consultation was not held at a sufficiently early date. These cases do not come early enough under the care of the surgeon. Regarding the "diaphragm phenomenon" of LITTEN, I would say that this sign has not received sufficient attention to permit us to speak definitely as yet of its value in the diagnosis of these cases.

The Deformity of Hip Disease; Illustrated by Automatic Models

Dr. A. B. JUDSON: I wish to exhibit the mechanism, shown in the cut, to illustrate the deformities of hip disease. The models are constructed to imitate the motions of the hip and the vertebral column in health and as affected by ankylosis. The images are cut out of pasteboard, and are pivoted on the background at V in the full figure, and at H in the profile. The joints are made of loose eyelets. The limb is first adducted, and then ankylosis is imitated by applying the spring-clip (a scarf retainer), which binds together the piece representing the pelvis and that representing the femur. When the limb is now made parallel with the axis of the figure, apparent shortening is produced. In a similar manner may be illustrated the production of apparent lengthening by abduction. Referring now to the profile, the limb is first flexed and ankylosis simulated by applying the spring-clip to the pieces representing the pelvis and the femur. When the limb is then brought down to the table, the lumbar region of the spine is arched. The dotted lines prove that ad-

duction, as shown in the full figure, increases the stature, while flexion, as shown in the profile, decreases it.



Electric Centrifuge for Urine, Milk, etc.

Dr. HENRY G. PIFFARD: The objection to the Babcock dairy machine, which I showed before this Academy about two years ago, was that working it was arduous. I have at last found an electric motor of sufficient power that may be mounted with the shaft vertical. The lowest speed is 1080, and the highest 1420. By an extra tube we cannot only determine the amount of butter fat, but also the quantity of mechanical impurities in the milk.

SECTION ON SURGERY

February 10, 1896

B. FARQUHAR CURTIS, M.D., Chairman

Appendicitis from Traumatism

Dr. W. B. COLEY: I desire to present this boy, aged 13 years, who, in my absence from town, was operated upon by Dr. B. F. CURTIS for an appendicitis which was of traumatic origin. He had received a blow from a push cart, and three days later applied to the hospital for a truss. His temperature was 101°, and he had a tender tumor in the right iliac fossa. I sent him to the Post-graduate Hospital, and his symptoms became so rapidly worse that he was operated upon at mid-

night of the same day. The appendix was gangrenous at the end, and there was an abscess the size of an English walnut.

Patent Urachus

I also wish to present another interesting case, a baby three months old, with a patent urachus. This is the only case of patent urachus that has been seen at the Hospital for Ruptured and Crippled for at least five years. There is a little enlargement at the umbilicus, and there is constant dribbling of urine from the opening. The probability is that it will close without operation, but if it does not do so within two or three years an operation will be undertaken for its closure.

Foreign Body in the Appendix

Dr. JAMES P. TUTTLE: I wish to present a foreign body removed from an appendix vermiformis. There was nothing special about the history except recurrent colic. This calculus weighs 3½ gm. It has not yet been cut open, so that I cannot say what is the nature of the nucleus. The appendix had sloughed off from the intestine.

The Chairman, Dr. CURTIS: It is rather remarkable that we do not see more cases of appendicitis from traumatism when we consider the situation of the appendix in a region of the abdomen which is peculiarly subject to contusions and rupture or laceration of the intestine. Apropos of patent urachus, I saw the other day a new-born infant with an umbilical hernia extending half way from the ordinary situation of the umbilicus to the symphysis pubis. There was another tumor just below this, which proved to be an everted bladder. The anus was absent, and out of an opening in the bladder, feces was exuding. The child appeared to be a female. Of course, nothing could be done for its relief.

Dr. S. ALEXANDER: Regarding the case of patent urachus, I would say that last year I saw a man, 25 years of age, suffering from this condition. About one-third of the urine was passed through this fistulous opening. A very simple operation was sufficient to effect its closure. I dissected up the mucous membrane, and transfixed and tied the urachus at the umbilicus and closed the skin over the stump. The wound healed promptly.

Dr. A. E. GALLANT: I have examined upward of 200 appendices in a search for foreign bodies. In only one of these did I find seeds. In this one there were seven berry-seeds situated in the distal end of the appendix. In most of the other cases there was apparently a foreign body, but it proved on examination to be only fecal concretion.

Appendicitis

Dr. ROBERT T. MORRIS read a paper on this subject. See page 243.

Dr. BEVERLEY ROBINSON: Although a medical man, I have been asked to open the discussion on appendicitis before this gathering of surgeons. I am here, however, for the purpose of emphasizing certain ideas on this subject which I hold, and which I have already expressed at a meeting held about two years ago. I stated at that time that I believed in many instances the only correct interpretation of the causation of appendicitis was in the recognition of an underlying rheumatic condition. Since that time I have seen a certain number of cases, both in my own practice and that of some others, and my conviction on this point is even more pronounced than before. This may seem to the surgeon as

springing upon them an old, worn-out medical idea. I think that surgeons at the present day resort to the knife altogether too freely, although I do not wish to be understood as opposing operative interference under certain circumstances. The latest anatomical investigations seem to prove that in the cecum at times, and more particularly in the appendix, there is a large amount of what is known as lymphatic or adenoid tissue. This makes the appendix resemble the formation found in the tonsils of the throat. Nothing is more generally recognized to-day, than in very many acute and chronic inflammatory conditions of the tonsil the underlying rheumatic condition must be recognized if we would get the best results from our treatment. In very many instances of tonsillar inflammation, one must use both local and constitutional treatment. By constitutional treatment I mean the administration of salol, salicylic acid, the salicylates, or salicin, the latter being the drug from which salicylic acid was originally procured. There are both anatomical and analogical reasons for regarding appendicitis as largely of rheumatic origin. Direct examination of the appendix at the time of operation, or post-mortem, often reveals conditions which seem to me best explained on the theory of an underlying blood dyscrasia, probably rheumatic. It is now well known that true foreign bodies other than fecal concretions are very rarely found in the appendix. In rare instances a fecal concretion or a foreign body may be a cause of an inflammation of the appendix, but these cases do not occur sufficiently often to explain to my mind the very frequent occurrence of appendicitis. We are more apt to meet with appendicitis in youthful patients—in other words, in those subjects in whom we would look for a most rapid development of lymphoid tissue. One observer has gone so far as to say that the appendix is the "abdominal tonsil." When the tonsil or the appendix becomes diseased, it is no longer able by its leucocytes to protect itself from the invading micro-organisms. We may suppose, then, that by frequent irritation of the organ by the rheumatic poison it is put in such a state that it cannot resist the inroads of septic micro-organisms, and the result is appendicitis.

Now, what has been my own individual experience? I have frequently attended children who have presented to my mind evidence of appendical colic—of localized inflammation. In several instances, patients of mine have had one or more attacks of appendicitis, and have subsequently given every evidence of rheumatism. Similarly, I have seen patients present evidences of rheumatism in other parts of the body, and subsequently develop tonsillitis, which was amenable to rheumatic remedies. There is no more reason why the appendix should not suppurate than the tonsil of the throat. I think this suppuration can be prevented up to a certain point, although when seen at a late stage, of course, incision is the only thing. The surgeon tells us that the physicians have no treatment for appendicitis, and I am sorry to say that many medical men are now handing over their appendicitis cases at the outset to the surgeons for operation. From my point of view, the cold coil is bad treatment—warmth is better. I think there is no objection to the use of *mild* purgatives, but those which actively stimulate the intestinal peristalsis should be avoided. I have already spoken of the value of administering anti-rheumatic remedies. I believe by such treatment you can in many instances cure your patient without operation.

Dr. C. L. GIBSON: The mortality rate described

in the series of cases of appendicitis reported in the paper is, I believe, the best yet recorded. The same may be said about the immunity from ventral hernia. I am not prepared, however, to believe that this wonderful record is due to the author's peculiar methods of operating. The freedom from ventral hernia is so unusual that I wish Dr. MORRIS were here to tell us whether he looks upon the lighter degrees of protrusion, or the existence of an "impulse" as indicative of true hernia. His method of sewing up the abdominal wall, as described by him, appears to be identical with that practiced by many surgeons; but others have not approached these results.

The Chairman, Dr. CURTIS: I would call attention to the fact that all but 38 cases were without abscess, and were practically operations on an uninfected peritoneal cavity. The death-rate in appendicitis operations comes from the peritonitis. The freedom from hernia, I think, is to be explained partially in the same way—the large number of cases in which there was an absolutely clean wound ready for suture.

Dr. HOWARD LILIENTHAL: A little boy came to the Mt. Sinai Hospital with an abscess resulting from an appendicitis. I was forced to open it without looking for the appendix, because the boy was in a very bad condition. A sinus was left. Some weeks afterwards I excised the sinus and removed the appendix. I found at its tip an opening communicating with the sinus. The appendix contained a concretion in which was a piece of wood, about one-third of an inch long, and having about the same diameter as an ordinary match.

Regarding the etiology of appendicitis, I would say that even granting that the thickening of the appendix and distention, or narrowing of its lumen may be due to rheumatic poisoning, I cannot see how that can influence the operative treatment, except as regards the chronic, so-called, catarrhal cases. If an acute case is *progressive*, in spite of medical treatment for 24 hours, I think it unquestionably demands operation.

Dr. ARTHUR L. FISK: Regarding the bugbear of hernia following operations for appendicitis, we operate upon these cases because it is necessary to do so to save the life of the individual. To do the best work, most of us find it necessary to use a sufficiently large incision to expose the field to the guidance of sight as well as of touch. It is not good surgical treatment to close up an abscess cavity; and hence, I would not favor closure of the wound after most appendicitis operations. Should ventral hernia occur, the recent statistics of HALSTED and of COLEY show that operations for the relief of hernia, as performed by them, are followed by a very small percentage of relapses. I do not think that the appendix can be looked upon as the abdominal tonsil, considering the mode of development of the intestine. Dr. DEXTER, in "The Anatomy of the Peritoneum," shows that the intestinal tract is first a tube; then a dilatation occurs for the stomach; then the tube folds upon itself and the lower portion folds over the upper portion, producing the descending and transverse portions of the colon. The caput coli is at first under the liver, but subsequently it grows downward, forming the ascending colon. The appendix is of the same formation as the rest of the intestinal tract; hence I cannot understand how it can be the seat of an accumulation of lymphoid tissue, which does not exist elsewhere in this tract.

The Chairman, Dr. CURTIS: I should like to indorse what the last speaker has said about the ne-

cessity of having the incision sufficiently large to admit of seeing what is being done. If the abscess is small and near the anterior wall of the abdomen, it is very simple to operate through a very small incision. The removal of the appendix necessitates the use of a rather large incision, so that we may be informed of the accidental breaking through of the protecting wall of adhesions.

The use of peroxide of hydrogen solution seems to me very dangerous, because the expansion produced by the gas might break through the adhesions into the general peritoneal cavity.

Amputation of the Tongue for Malignant Disease by Electro-Surgical Means

Dr. DAVID H. GOODWILLIE: Malignant disease of the tongue is nearly always of the type of squamous-celled epithelioma. The most frequent seats of the disease are at the side, middle, and posterior third. It is almost always primary and local in its inception. It advances somewhat slowly, and consequently the cancerous cachexia is not very well marked. The causes of epithelioma of the tongue may be divided into predisposing and exciting. In the former the age and sex are quite prominent. It seldom occurs before 30 years of age, and is most prevalent between 40 and 60 years. It is by far more frequent in men than in women, probably due to different habits of the sexes. Inheritance does not appear as a well-established etiological factor. The exciting causes are chronic, such as diseased teeth, or ill-fitting dental plates, irritation from tobacco-pipes, etc. Epithelioma may appear first as a fissure, ulcer, wart, or nodule, which at first may be non-cancerous. Syphilitic diseases of the tongue are often confounded with the early stages of cancer. In syphilis there is a syphilitic history, the speech is distinct, the tongue has free motion, and there is no sloughing, whereas in cancer the opposite obtains. The effect of treatment is also important in distinguishing the two conditions. In syphilis the lesion is usually oblong; in cancer it is circular. In syphilis there is little or no pain; in cancer there is much pain. In syphilis the mucous membrane is smooth over the tumor; in cancer the mucous membrane is rough, and the papillæ hypertrophied. The diagnosis of every case should be confirmed by microscopical examination.

In the treatment of lingual cancer, removal by operation is justified even in extreme cases, as in this way much comfort may be given the patient, if nothing more. Do not trifle with local applications while you are losing a golden opportunity to save life. The patient should be put on a diet of animal food and ferments avoided. Arsenate of iron, Chian turpentine, and thuja may assist the treatment; but do not depend upon them to the exclusion of extirpation. The ligation of both lingual arteries is an important preliminary step in total extirpation. I prefer to amputate the tongue at its base by means of an electro-cautery loop. For extirpation of half of the tongue, I prefer to use an electro-cautery knife. I apply a spray of peroxide of hydrogen to the stump of the tongue and allay pain with cocaine. The ligature is removed on the second day.

Dr. A. L. FISK: A great deal of bad oral surgery has been done. Previous to the Halsted operation for carcinoma of the breast it was customary to remove the breast and axillary glands, with the result of a speedy recurrence. Only experienced surgeons should, however, undertake such an operation on the breast as the Halsted or Willy-Meyer operation. The same may be said regarding epithelioma of the

tongue. Statistics show that the disease does not recur in the tongue, but in the lymphatics. This means that we must remove the glands as well as the tongue. Statistics show also that the poorest results have followed the use of the *écraseur*, and the best have followed the free use of the knife.

The Chairman, Dr. CURTIS: I object to the *écraseur*, not only for the reason just mentioned by the last speaker, but because one has to deal with a cauterized and sloughing wound in the mouth—an exceedingly difficult one to take care of. By Köcher's method, the wound can be almost closed by sutures, and there is no danger of sepsis. The mouth can be readily kept clean, and the patient is able to swallow very soon after the operation. I have never yet seen a case sufficiently early to lead me to feel that the glands should not be removed as well as the tongue; and even after thorough operations with the knife, recurrences take place in the glands. Whitehead's operation is another excellent one, but it is attended by more danger of hemorrhage than Köcher's operation, and should be supplemented by removal of the glands.

Dr. GOODWILLIE: I think the best result I have had from my method of operating has been a prolongation of life for two or three years.

Gastro-Enterostomy

Dr. GEORGE E. BREWER: I desire to exhibit a specimen from a case of gastro-enterostomy. The patient had a carcinoma of the pylorus. The jejunum was united to the greater curvature of the stomach by three rows of sutures. The patient did well for six days, when, without apparent reason, there was sudden and fatal collapse. The autopsy showed nothing else to account for the death but a chronic disease of the heart, and probably cerebral embolism. Examination showed very complete union of the operation wound in this short time.

Sarcoma of the Tibia

Dr. FISKE: This specimen of sarcoma of the tibia, which I show for Dr. ROBERT ABRE, was removed from a girl of 15 years, who had an excellent personal and family history. Last May she fell and struck the lower and inner portion of her leg on the edge of a basin. Nothing special was noticed until two months ago, when there was a slight stiffness of the muscles in this region. It was soon evident that there was a new growth, and on examination it was found to spring from the upper portion of the tibia, but did not involve the joint. Amputation of the thigh was performed.

Dr. LILIENTHAL: I wish to emphasize the importance of having a growth examined microscopically *during* an operation, whenever this is practicable. It can be done in 10 or 15 minutes by means of the freezing microtome.

Combined Perforator and Divulsor

Dr. JOHN B. WALKER exhibited a new combined perforator and divulsor for use in vaginal and other operations for perforating into the pouch of Douglas, or in other situations where incising with a knife is inconvenient.

Prothetic Apparatus for Humerus

Dr. E. A. BOGUE: I have the pleasure of presenting to you a rather interesting and unique prothetic apparatus which was used with good result by PÉAN on one of his patients. The idea of inserting this beneath the periosteum had its origin from a case in which there had been a deficiency of about 5 ctm. in the lower jaw, and PÉAN had reopened the cicatrix and

inserted a piece of platinum, thus restoring the jaw to its original size. The apparatus I exhibit was the identical one which PÉAN inserted into the arm of a young man of twenty-seven, suffering from tuberculosis. After wearing this for some months there was good development of bone, and the apparatus was removed. The ultimate result was all that could be desired.

Dr. A. B. JUDSON: At the International Congress at Berlin, one of the German surgeons exhibited pieces of apparatus made of ivory, similar to the apparatus just exhibited. The idea was, however, that these appliances were to become encysted and perform the functions of the natural joint. At that time, however, no successful case had been reported.

BOOK REVIEWS

A Pictorial Atlas of Skin Diseases and Syphilitic Affections.—In Photo-Lithochromes from Models in the Museum of the Saint Louis Hospital, Paris, with Explanatory Woodcuts and Text. By ERNEST BESNIER, A. FOURNIER, TENNESON, HALLOPEAU, DU CASTEL, HENRI FEULARD, and LEON JACQUET. Part I. English Edition edited and annotated by J. J. Pringle, M.B., F.R.C.P. American Publisher: W. B. Saunders, Philadelphia.

Of all the atlases of skin diseases which have been published in recent years, the present one promises to be of greatest interest and value, especially from the standpoint of the general practitioner. In short, the authors have at their disposal that world-renowned repository of wax models of cutaneous and syphilitic affections known as the Baretta Museum. From this immense collection of models taken from life a selection of typical and commonly observed clinical types will be presented in serial parts of this present publication. With such brilliant supply to draw upon, the pictorial presentations must be successful if the true artistic co-operation of the printer and lithographer is obtained. An examination of this, the first number, shows very decidedly that such co-operation has been procured. Four colored plates are presented. The first shows a case of lupus vulgaris, involving the nose and adjacent region; the second exhibiting, in a most lifelike manner, a case of dermatitis herpetiformis (showing hand and arm) of the vesicular and bullous type. The third plate portrays a double chancre of the vulva.

The fourth plate (leg) is one exhibiting a rather remarkable polymorphous purpuric erythema, allied closely, apparently, with hemorrhagic purpura. In all these plates the coloring is most artistic and lifelike. In addition to the above there are woodcuts of the cases of lupus and dermatitis herpetiformis, and several woodcuts showing the initial lesion upon the vulva. The illustrations are made more valuable by the clear explanatory descriptions given, and by citing briefly the history of the cases presented.

If the distinguished authors, aided so artistically by the publishers, continue to give us such praiseworthy work, not only will the success of this atlas be assured, but the medical public will be placed under material obligation.

Leçons de Chirurgie.—By Dr. FELIX LEJARS. Pp. 629. Paris: G. Masson; 1895.

This book comprises a series of lectures delivered at La Pitié in 1893-94, following the death of Prof. Le Fort, to whom the book is dedicated. The first chapter is devoted to a discussion of the pulse

in surgery. The second to the subject of skin grafting according to the D'Ollier-Thiersch method, as the method is described by the French surgeons, while we know it under the term of simply the Tiersch method. This chapter deals with the different methods and modifications that have been developed about Tiersch's suggestion, and accompanies them with an abundant report of illustrative cases. The third chapter discusses exostosis, and consists in the histories of a series of cases operated upon by the author in his services in the different hospitals. The other chapters are likewise clinical, and consider the subjects of sarcoma of the soft parts, chronic osteo-myelitis, and physiological conical stump. In the chapter on fractures of the clavicle and osseous suture much space is devoted to the immediate suture of fractures of the bone. Old dislocations of the shoulder, tuberculosis of the scapula, and its treatment, fibrous ankylosis of the elbow, in which resection is advocated as the operation of choice, external lateral dislocations of the elbow, marginal osteitis of the pelvis, false coxalgia, treatment of old fractures of the neck of the femur, deep abscesses of the thigh, tubercular adenitis of the inguinal glands, amputation of the knee by the posterior flap, knock-knee and its treatment, ankylosis of the knee, where, as in ankylosis of the elbow, excision is preferred, are then discussed. The forms of tuberculosis of the knee, phlebitis, cases of faulty union of fractures in the lower part of the leg, and their treatment, tubercular osteitis of the first metatarsal bone, malignant disease of the superior maxilla, infections from the teeth, and so on through stone in the bladder, and the discussion of the different genito-urinary diseases, with finally a few papers devoted to gynecological subjects complete the topics presented. The book is interesting because it gives a *résumé* of much of the French practice, and the views of many of the leading French surgeons. In common with most books of its class it lacks a proper discussion of the work done in other countries, both the German and English sources being largely omitted; but nevertheless the conclusions seem to be practically the same as those reached by observers in other localities, and consequently as an independent contribution to surgery, coming from a local source, and practically giving the views that have been expressed by writers who have carefully compiled the international views on these subjects, the work is valuable. Naturally it can have but a somewhat local circulation, as it is simply a series of lectures, and will be more valuable to the students in La Pitié than to the profession at large.

BOOKS RECEIVED

Color-Vision and Color-Blindness. A Practical Manual for Railroad Surgeons.—By J. ELLIS JENNINGS, M.D., Lecturer on Ophthalmoscopy and Chief of the Eye Clinic in the Beaumont Hospital Medical College; Consulting Oculist to the Missouri, Kansas and Texas Railway System, etc. Crown 8vo, pp. 110. Illustrated with one colored full-page plate and 21 photo-engravings. Philadelphia: The F. A. Davis Company, 1896. Price, cloth, \$1 net.

Epidemic Ophthalmia: Its Symptoms, Diagnosis and Management.—By SYDNEY STEPHENSON, M.B., F.R.C.S. Ed.; Surgeon to the Ophthalmic School at Hanwell. Pp. 278, with illustrations. New York: Macmillan & Co., 1896. Price, cloth, \$3.

EDITOR'S NOTES

The Metropolitan Medical Society.—The following officers were elected at the annual meeting: President, Dr. E. L. Meierhof; vice-president, Dr. M. S. Kakels; secretary, Dr. Percy Friedenberg.

Lehigh Valley Medical Association.—This association held its annual meeting on January 31st, in Allentown. A number of interesting papers were read. The next meeting will be held at Wilkesbarre in the spring.

The Twelfth Annual Meeting of the Fifth District Branch of the N. Y. State Medical Association will be held in Brooklyn, on Tuesday, May 26, 1896. All Fellows desiring to read papers will please notify E. H. Squibb, secretary, P. O. Box 760, Brooklyn.

The County Medical Society.—At the next meeting, to be held on Monday evening, 24th inst., at the Academy of Medicine, a paper will be read by Dr. H. N. VINEBERG, entitled "Conservative Surgery upon the Uterus and Adnexa by the Vaginal Route," and another by Dr. JULIUS ROSENBERG, entitled "Non Nocere in Obstetrics."

No Tyranny.—It is stated that, owing to the dictatorial manner assumed by one of the Board of Directors of the Columbian Hospital in Washington, Dr. A. F. A. King has resigned—another instance where a physician has the manhood to enter protest against the treatment which, too frequently, lay Boards of Managers think they may inflict on medical men.

An Orphan Asylum Quarantined.—An epidemic of various contagious diseases has broken out in the Orphan Asylum of the Hebrew Sheltering Guardian Society. This asylum gives shelter to about eight hundred waifs, and of this number it is reported that over three hundred are suffering from skin diseases of a more or less infectious nature. This deplorable state of affairs is complicated by the fact that trouble appears to have broken out between the lay manager and the visiting physician. Formal charges have been lodged with the State Board of Charities against the superintendent by the attending physician, who has resigned his position. It is further reported that three prominent members of the Medical Board have likewise resigned. Is this another case of incompatibility between laity and medical men, as was the case when, from principle, the Medical Board of the N. Y. Infant Asylum resigned a few years ago?

State Medical Examinations.—A committee, consisting of Dr. G. R. Fowler of Brooklyn, Dr. W. W. Potter of Buffalo, and Dr. M. J. Lewi of New York, of the State Board of Medical Examiners, representing the Medical Society of the State of New York, met last Saturday afternoon at the Fifth Avenue Hotel, to hear arguments on the division of the licensing examination. There were present Professors W. Gilman Thompson and R. Witthaus, of the University of the City of New York Medical College; Dr. Phoebe J. B. Wait, dean of the New York College and Hospital for Women; Dr. J. H. Raymond and Professor W. W. Browning, of the Long Island College Hospital, of Brooklyn; Dr. Daniel Lewis, president of the State Board of

Health; S. G. W. Boskowitz, dean of the Eclectic and Medical College; Dr. James W. McLane, dean of the faculty of the College of Physicians and Surgeons; and the Rev. Sylvester Malone and Dr. Lewis A. Stimson, of the State Board of Regents.

Obituary.—Dr. ALEXANDER S. HUNTER died at his residence in Spuyten Duyvil on Thursday morning, the 12th inst., in the 57th year of his age. He was born in the State of New York, received his education at the Albany Normal School, and was graduated in medicine from the University Medical School in 1863. He settled in the city of New York, and became one of its best-known practitioners. For a number of years the state of his health precluded active practice, and he spent the greater part of his time in the country residence he had purchased at Spuyten Duyvil. His interest in medical matters, however, continued to the date of his last illness. He was a member of the New York Academy of Medicine, of the Medical Society of the County of New York (which society he served faithfully for two years as president and for many years as chairman of the Board of Censors), of the New York Obstetrical Society, and of the Medical Union, of which he was one of the founders. During his busy career he made many warm friends, and his practice was an exceedingly large one. He modified the Sims speculum and devised a short forceps. His interest was chiefly directed toward obstetrics, and he served the Academy for six years as chairman of its obstetric section. His was a busy life, and one well spent in the interest of humanity and toward the elevation of his chosen profession.

Dr. JOHN HOWARD RIPLEY died in Florida on February 14th. He was born in Connecticut in 1837, and was graduated in medicine from the University of the City of New York in 1866. He served in the army throughout the War of the Rebellion, and afterwards settled in this city, where he practiced his profession up to within a few weeks before his death. At the time of his death he was consulting physician to the Charity Hospital, visiting physician to St. Francis's Hospital, consulting physician to the Hospital for Ruptured and Crippled, a Fellow of the Academy of Medicine, of the County Medical Society, a member of the Physicians' Mutual Aid Association, and of the Society for the Relief of Widows and Orphans of Medical Men. For a period of 25 years, Dr. RIPLEY was a well-known figure in medical circles. He acquired a large general practice, and he was recognized as an all-around consultant. His specialty, if he can be said to have had one in the narrow sense in which the term is used, was the diseases of children. At one time he occupied the chair of clinical professor of diseases of children in the University Medical School. He was for several years Professor of Diseases of Children in the New York Post-graduate Medical School and Hospital, and he also taught general medicine at the New York Polyclinic. A thorough diagnostician, well versed in all the branches of medicine, of most genial manners and most kindly heart, Dr. RIPLEY will be missed by many medical colleagues and be mourned by a very large circle of patients and of friends. Dr. RIPLEY leaves a widow and three children—one son and two daughters.

Dr. RICHARD M. HODGES, one of the visiting surgeons to the Massachusetts General Hospital, Boston, died at the age of seventy on the 10th of February.

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RHEUMATISM AS A CAUSE OF APPENDICITIS

IN the discussion before the Section on Surgery at the Academy of Medicine, reported in the last issue of the BULLETIN, it was stated that rheumatism and gout might at times have a direct influence upon the production of the train of symptoms which we now recognize as indicating an involvement of the appendix vermiformis. In addition to the arguments advanced by Dr. ROBINSON the fact should also be noted that, in a certain number of cases, after the appendix has been removed, the patients still suffer from the same symptoms as before, and apparently the dyscrasia is in the peritoneum or the cellular tissue in the immediate neighborhood of the cecum. Two such instances have occurred in this city within the past six months, where the appendix was removed by prominent surgeons and caused debate by both surgeon and family as to the exact cause of the persistence of the symptoms; the family believing the patient had been guaranteed against such a recurrence by the appendectomy.

This etiological factor in appendical disease appears to have been practically ignored by German observers, but it has been referred to by the French and a few English authors, who have advanced the same views as those held by Dr. ROBINSON. SUTHERLAND in the *Lancet*, 1895, Vol II, p. 457, reviews the series of investigations that have been made in regard to the large amount of lymphoid or adenoid tissue which is present in the substance of the vermiform appendix, and which has led BLAND SUTTON to denominate it the "abdominal tonsil," because of the fact that this large amount of lymphoid tissue is also the chief structure in the tonsil.

Arguing from this similarity of structure between the tonsil and appendix, it is easy to reach the

conclusion that, as the tonsil is attacked from time to time by pathogenic germs, and as it is also subject to gouty and rheumatic manifestations, the same thing under similar conditions may be expected of the appendix. Almost coincidentally with the publication of this article in England ROBINSON, acting independently, published in the *N. Y. Medical Record*, Vol. XLVIII, No. 11, p. 373, an article on "Rheumatism as a Cause of Appendicitis: Points in Its Medical Treatment," in which he said that he had seen more than one patient who, subsequent to attacks of appendicitis, have had decided articular manifestations, and during many years of this rheumatic localization the appendical region has remained entirely free from any inflammatory disease. That rheumatic inflammation should attack this region we should expect if we consider the close relationship of the appendix with the peritoneum, and the fact that this serous membrane, like the pleura or the pericardium, is precisely the structure for which rheumatism, when it leaves the joints, has a special predilection. The rapid supervention of suppuration in the appendix does not militate against this view, since the same thing may occur in acute quinsy and salpingitis of rheumatic or gouty origin. This is pretty generally recognized (see debate before Practitioners' Society, March, 1893), and has been proven, in ROBINSON's opinion. It was corroborated by Dr. POLK in the course of the same debate by the fact that there are many inflammatory conditions of the uterine appendages which are not influenced by treatment unless the underlying rheumatic or gouty dyscrasia is distinctly recognized by the medical practitioner. He believes that he has had clinical corroboration that in a certain number of cases, where inflammation has begun in one of

these organs, suppuration was avoided by the judicious use of anti-rheumatic and anti-gout remedies.

It is undoubtedly true that, when suppuration is already fully established, it is time for immediate surgical intervention, and that operation is then the only reasonable way in which full recovery can be expected; but he also believes that in some cases where there is only a small quantity of pus present, as in similar cases involving the tonsils, absorption may take place. In ROBINSON'S opinion we must return to a proper appreciation of the diathetic influence which almost invariably underlies the local expression of disease in any given case, and he believes that it is very short-sighted and injurious, in medicine or surgery, to ignore the wisdom of the ages in favor of procedures which must of necessity be employed in a general way, frequently to the disadvantage of the patient.

CONSUMPTION CURE?

THE BULLETIN is impressed with the necessity of carefully considering, from a purely scientific standpoint, the so-called "Rational Treatment of Phthisis Pulmonalis," and the "New Remedial Solution," which has quite recently been advanced as a cure for this much-dreaded disease. Further, to determine, if possible, whether it is a rational treatment, and whether it is founded on sound chemical and physiological principles, so that the profession may avoid, if possible, being drawn into error, as they have so frequently in the past, with the endless number of "ins" that have been developed during the last few years.

The three factors to be considered in the rational treatment of tuberculosis are: First, the predisposition to contract the disease, or a lowering of the chemical resistance of the animal economy as a whole; second, the greater liability of such a system to be attacked by inflammatory processes, thus localizing the predisposition to inoculation; and third, the introduction of the tubercle bacilli into this suitable soil for their further growth and development.

Mere destruction of the micro-organism, even if this were possible without destroying completely animal life itself, is but a minor part in the treatment of this or any other germ disease. The chief and essential end to be accomplished is the development of a higher chemical resistance on the part of the system, both locally and as a whole. This once established, nature, by her own inherent powers, will repair the pathological damage which the

system has sustained, and also be in a position to prevent further contamination by infectious agents, be they micro-organisms or toxins.

Now, then, what is this new cure? Simply an aqueous solution of carbolic acid and a carbolate (phenate or "phenyl-hydroxide") of pilocarpine—a solution that contains 2.7401 per cent. of carbolic acid and 0.0188 per cent. of carbolate of pilocarpine. The dosage of this fluid is from 50 to 70 minims, given hypodermatically once daily, and increased 10 minims each day, until 100 or 120 minims are administered daily. Both carbolic acid and pilocarpine have been advanced as valuable remedies in the treatment of tuberculosis. Neither one, however, has stood the test of time, but both have been discarded as valueless.

All that is new about this treatment is the use of the carbolate of pilocarpine, instead of one of the other salts of this alkaloid that are in common use, and the administration of this new salt in combination with carbolic acid. The physiological action of carbolate of pilocarpine is yet undetermined. There is no recorded data as to any experimental work having been done with this salt, either alone or in combination with the carbolic acid. In the absence of any such information it is reasonable to assume that the action of a carbolate of pilocarpine is similar to that of the other salts of the same alkaloid. As the minimum dose of pilocarpine is $\frac{1}{8}$ of a grain, it is highly improbable that $\frac{1}{100}$ or even $\frac{1}{80}$ of a grain of the carbolate can produce any very profound changes in the chemistry of the animal organism. Certainly there is nothing to show that it increases the nutritive activity of the system, and thus increases the chemical resistance of the physiological economy; neither has it been shown to prevent the tendency to develop inflammatory processes, nor to arrest the growth of micro-organisms. Therefore, until some well-confirmed evidence is forthcoming to show a positive action upon the system from the use of these small doses of the carbolate of pilocarpine, very little reliance can be put in this part of the remedy as an anti-tubercular, anti-septicemic, or anti-malarial agent. As the leucocytosis theory is far from having been satisfactorily established, and as no experimental work is recorded in this connection with this salt of pilocarpine, this line of argument is of little value. The ability to stimulate glandular activity by such small doses, administered once daily, appears as an absurdity to one who has used pilocarpine to any extent.

The good results, if any are to be obtained from the use of this remedy, must come then from the

contained carbolic acid. In fact the author builds up the theory of its action in a large measure upon the statement that carbolic acid is found in the excreta of animals. If the author had followed his physiology a little more closely, we are inclined to think that he would not have drawn some of the deductions that he has recorded. While he tries to establish the fact that carbolic acid is produced by the animal economy for curative purposes, the physiological chemists have demonstrated that the carbolic acid that is found in the urine is the result of the pancreatic and putrefactive decomposition of the proteids contained in the food-stuffs. In HALLIBURTON, we find the statement that "Phenol occurs normally in the urine, sweat, and feces, in small quantities, but especially after medical or surgical treatment with carbolic acid or other drugs containing a benzene nucleus. It is seldom present in the free state, but usually as phenol-sulphate of potassium ($C_6H_5O.SO_3K$)."

This statement being true, the phenol or carbolic acid formed in the alimentary canal as the result of these putrefactive changes in the proteids of the food-stuffs is converted while in the alimentary canal into a salt. After being so transformed into phenol-sulphate of potassium, it is absorbed from the alimentary canal and carried by the blood-stream through the system to the kidneys, where it is eliminated from the body as a salt of carbolic acid; consequently, phenol as such is never found normally in the body, although its salts may reach the urine through the blood, and there be decomposed by the uric acid with the liberation of free carbolic acid. This setting free of the carbolic acid by the action of the uric acid on the carbolate in the genito-urinary canal has unquestionably misled many a casual observer. Therefore, the true interpretation of the presence of carbolic acid in the urine is that putrefaction of the proteids is going on in the alimentary canal. From this it might very justly be argued, the more phenol there is in the urine the greater the putrefaction in the intestinal tract. Certainly, intensified putrefactive changes going on in the body, or even in the intestinal canal, can hardly be considered as indicative of a higher grade of nutrition. In the treatment of phthisis or tuberculosis, it certainly is not the aim of the scientific physician to intensify the putrefactive changes in the proteid substances in any part of the body.

Further, as carbolic acid coagulates albumin, the injection of two or three grains subcutaneously at a time may result in positive damage to the system by coagulating the blood in the capillaries and give rise to embolic processes. It is also stated upon good

authority, such as BRUNTON, that carbolic acid is a profound poison to the central nervous system. Therefore it is impossible to see how the use of such large doses of this acid can be justified in a disease in which all of nature's powers are at such a low ebb. What the poor tuberculous subject needs most is something that will raise the nutritive powers to a higher plane. This once accomplished, nature will easily master the problem of ridding the system of the micro-organisms.

Viewed in this light it is clear that this solution, which purports to be a new remedial agent for the treatment of phthisis, is in reality little else than the combining of two lines of treatment, both of which have been tried and found to be practically failures.

At this point the BULLETIN would call the attention of the profession to the fact that the results claimed for this new treatment are certainly not as good as those that have already been achieved by well-directed dietetic and hygienic measures, when these are systematically and effectually carried out. Therefore our readers are warned not to be carried away by the glowing accounts of this treatment that have widely appeared, first in the lay, and then in the medical, press.

Abolition of the Coroner System.—The bill for the abolition of the office of coroner has been introduced in the Assembly, and it is to be hoped will not meet with such opposition as to side-track it. It behooves the Committee on Legislation of the medical society of the State to watch this bill carefully.

Pure Milk.—The circulars issued by the Board of Health to all milk dealers, if the sections are enforced, will prevent absolutely the sale of adulterated milk in the city of New York. The sections provide that no milk shall be offered for sale or delivered in the city without a permit in writing from the Board. Milk shall not be stored in any place used for sleeping or domestic purposes, nor shall any be opened therein. It shall not be transferred from cans to bottles in the street, or on ferries, or in depots. Bottles in which it is put shall be cleansed after a specified fashion. Permits from the Board to sell milk must be posted in stores.

Bicyclers Bad Risks.—The mutual accident insurance companies of the United States have unanimously resolved that bicycling is a hazardous occupation. The following resolution was passed:

"Resolved, That the use of the bicycle should be covered by additional cost, or reduction of death and indemnity benefits, and it is recommended that this be provided for by either of the following methods: The adequate increase of premiums to cover the added risk, or the classification as an occupation of bicycle riders in a class twice as hazardous as the 'preferred' risk; that benefits by accidents by bicycle riding be specifically reduced; the including of bicycling under the policies to be covered only by specific permits at an extra premium."

ORIGINAL CONTRIBUTIONS

PRACTICAL LIMITS IN THE EMPLOYMENT OF CATHODE PHOTOGRAPHY IN SURGERY*

By JOHN TROWBRIDGE,

Rumford Professor and Lecturer on the Application of Science to the Useful Arts, Harvard University

THE application of the cathode, or X-rays, to surgery, has awakened widespread interest in the medical profession, and many sensational reports have filled the newspapers. A calm survey of the present possibilities of cathode photography will, perhaps, be of interest. First, let us see how the photographs are taken. An ordinary photographer's plate-holder, inclosing a sensitive dry plate, is placed about six inches from a pointed aluminum terminal, inclosed in an exhausted vessel similar to an Edison lamp-bulb. In fact, an incandescent lamp-bulb with a broken filament constitutes a Crookes tube, when the ends of the filament are connected with the two terminals of a Ruhmkorff coil, or suitably with the prime conductors of an electrical machine. One end of the filament is thus electrified positively and the other negatively. From the end electrified negatively stream the cathode rays, which are said to produce the X-rays, which in turn affect the sensitive plate. Aluminum terminals are found to be better than the broken ends of a carbon filament.

In order to get a sharp picture of the bones of the hand, for instance, the hand must be placed directly on the slide of the plate-holder, the palm of the hand toward the cathode. This position brings the bones of the hand nearer the plate than the reverse position. The slide, of course, is not drawn, the picture being taken through it, and in ordinary daylight. Shot an eighth of an inch in diameter, placed on the palm of the hand, can be photographed through the flesh and appear on the photograph as diffuse images, clearly recognizable, however. Pieces of glass of similar size can also be located. If such foreign particles are less than half an inch from the plate they give comparatively sharp images. At a distance of 1 inch their contours are not sharp. The process seems at present to be limited to areas about an inch from the sensitive plate. It is clearly applicable to portions, therefore, of the extremities of the human body, especially to those of children. The breast and abdomen present too great a thickness for clear photographs. It is possible that suitable exhausted tubes may be introduced into the body, and thus photographs may be taken from within outward. Thus a film can be placed close to the teeth inside the mouth and the exhausted tube be placed outside near the cheek.

With an electrical machine or with an induction coil giving a 2-inch spark, the length of exposure varies from half an hour to an hour. With a Thomson or Tesla coil actuated by an alternating current,

taken from an ordinary transformer such as is employed to light buildings, the time of exposure can be reduced to three or four minutes, and in some cases to one minute.

Great care must be taken to prevent injury to the Crookes tubes. The terminals of the tubes heat; and, moreover, sparks branch out from one or the other terminals, spread over the surface of the glass vessel and penetrate the thin walls of the tube often near the platinum entering wires. The life of the tube can be greatly prolonged by immersing the points of entry of the platinum to a considerable depth in boiled linseed oil. This prevents the sparking over the surface of the glass. The oil should not extend over the space through which the X-rays emerge. Stereoscopic representations of the hands can, of course, be made by taking photographs from two positions about three inches apart, and by suitable measurements an approximation can be made in regard to the position of a foreign body in the hand.

We are evidently in the first stages of a new method of studying the extremities of the human body and of the growth of calcareous formations in the lower forms of life. It is difficult to believe the reports of the detection of needles, for instance, in the abdomen or in the breast; for the method we must employ to get a sharp photograph of the hand, namely, the placing of the back of the hand against and close to the plate holder, seems to preclude the possibility of detecting a needle several inches away from the plate. There seems no hope at present in obtaining photographs of the brain. It is possible that a dim shadow might be obtained of one side of the cavity in which the brain is located. The specific absorption, so to speak, of the brain tissue for the rays is probably not different from that of ordinary flesh, so that its structure could not be revealed by this method. In the photographs taken through the hand no difference is noticed between the various tissues; the blood-vessels, for instance, cannot be recognized.

No refraction of the rays has been discovered. Glass lenses are out of the question, for a piece of window glass absorbs the rays almost completely. I have tried wooden lenses without results. One imagines that a magnetic lens might be constructed, for the cathode beam can be deflected by a magnet, and in this way the resulting X-rays can be sent in different directions. A magnetic lens, consisting of electro magnets, placed suitably, seems theoretically possible; but on account of the great diffusibility of the X-rays in passing into air, which acts like a turbid medium in the case of light, I have not yet met with success in this application.

Cambridge, Mass.

Brain Photography.—We are informed by reliable authority that the physician who recently exploited an alleged photograph of his own brain in the daily newspapers will soon be disciplined by the institution with which he is connected.

* Written specially for the BULLETIN.

THE PRESENT STATUS OF CEREBRAL SURGERY*

By EDWARD D. FISHER, M. D.

Professor of Mental and Nervous Diseases, University of the City of New York, Med. Dept.

THIS subject has been before the profession for some years, and has passed through various epochs. The enthusiasm of the early writers was succeeded by opposite views, but I believe that a more moderate and truer estimate of its value in various diseases now exists.

To properly understand its position, we must consider the class of cases in which surgery may be of value. I think that early in this epoch the desire to operate laid under the surgeon's knife many cases which were inappropriate, and the unfavorable results were due to inexperience and bad surgery. Again, there was often too great recklessness, or too much timidity; so that, in the latter case, we had the danger of the operation, and yet not the advantage of thorough exploratory work.

Our present experience seems to show that we can expose the brain to a great amount of manipulation, or even to extensive ablation, without endangering life.

The methods of precision in the operation on the skull proper have been much improved, leading to decrease of the hemorrhage and consequent shock, and also to lessening of the time required for the operation.

Operation is indicated in various diseases of the brain, and while in some cases experience has not yet definitely established its utility, still we have a theoretical basis for the operation which justifies it, especially as with proper care the mortality is not high.

The special indications for operation are the following: 1st, traumatism; 2d, localized epileptic seizures; 3d, athetosis, with or without epilepsy; 4th, tumors which are localizable; 5th, abscess; 6th, cerebral and especially meningeal hemorrhage; 7th, microcephalus.

The results as shown by statistics are not particularly favorable. The percentages of recoveries I will leave for those to give who have been assigned to the special subdivisions of the subject. One case, however, if successful, should have much greater weight in the indorsement of the operations than many failures.

I have had a number of cases in which operation has been performed for localized epileptic seizures with more or less favorable results. I shall here refer to only one, as illustrating the benefit which may follow in cases where an operation is performed long after the injury.

The patient, B, fell from a tree, injuring the right side of the skull. Five years later epilepsy supervened. He had been trephined, and merely a button of bone removed before he came under my care, without, however, any benefit.

I state this to emphasize the uselessness of such incomplete operations.

The operation was performed by Dr. GEORGE WOOLSEY, in Bellevue Hospital. There was found an exostosis of bone pressing into the arm center. This was removed, and the patient made an excellent recovery.

Immediately after the operation the seizures were very frequent, but became gradually less; so that at present, three years later, there have been no attacks for one and a half years.

In regard to athetosis, when it is due to cortex irritation,—and probably it is in the majority of cases, and certainly so if associated with epilepsy,—removal of the cortex center is indicated.

This is shown in a case also operated on by Dr. WOOLSEY for me, in which the bone-flap method was employed. I located the arm and hand centers by the electrode. There was an absolute cessation of the athetosis for six weeks; the evidence was complete, therefore, that we had reached the seat of the lesion.

The mistake made was that an insufficient area of the cortex was removed. This would necessarily cause a permanent paralysis, but this latter condition is preferable to semi-paralysis and athetosis. We are dealing with a most hopeless class of patients, and this is the only door open for relief.

In regard to tumors I would say that, whether we can remove the growth or not, relief from headache and convulsions is often obtained by operation.

My own experience in this respect agrees with that of HORSLEY.

I reported a case before the American Neurological Association in June, 1895, of tumor of the cerebellum, which had not been localized during life owing to the absence of any localizing symptoms. The operation was performed by Dr. J. F. ERDMANN, of New York. We selected the point of pain, which was distinctly located over the right eyebrow, as the site of operation, having no other symptoms of localization to go by. We found nothing; but for the ten weeks following, during which the patient lived, there was absolute relief from pain and convulsions.

The post-mortem revealed a tumor lying in the right cerebellar hemisphere. Can any one say that the operation was not justifiable, or indeed imperative, judging from the results? In regard to the method of operation, I would say that I am in favor of the bone-flap operation, as we thus secure a complete restoration of the skull, and thus have no danger from subsequent injury.

Adhesions do not take place unless we have injured the dura, or it is thickened by disease; and in the latter case I recommend its removal.

If the dura is merely opened and then sutured, the union is complete as shown at the autopsy I made two years following the operation.

In regard to the union of the bone flap, while it is advisable to preserve the periosteum, it is not at all necessary.

I have not found that the use of the chisel in the bone-flap operation in any way increases the shock.

* Read before the New York State Med. Society, January 29, 1896.

In my last six cases I kept my hand on the pulse the whole time, and observed no special change under the stroke of the hammer. There is always a sensible weakening of the pulse in all cerebral operations, which increases with the length of time consumed; and this was, of course, present in these cases.


In cases of tumor I would advise the removal of the bone, as we can thus secure greater space for exploration, if necessary.

I would close by saying: Let the operation always be a complete one, as so much danger is incurred in all cases that it is folly not to go far enough to ascertain the exact condition we are dealing with. Again, although statistics do not show many good results, still there is often a possibility of relief if not cure; and, therefore, as most of these cases are otherwise hopeless, it becomes the duty of the physician, in the light of our present experience, to advise operative interference.

New York; 42 West Forty-fifth street.

A REPORT ON THE CONDITION OF THE PARTS, FOUND UPON AUTOPSY, SIX WEEKS AFTER BASSINI'S OPERATION FOR HERNIA

By GEORGE EMERSON BREWER, M.D.

 WING to the widespread interest which is now being taken by the medical profession in the Bassini operation for the radical cure of inguinal hernia, a report of the condition of the parts involved in such an operation, found upon autopsy, in a patient who had recently submitted to this procedure, was thought to be of sufficient interest to justify the attention of the Section for a few moments.

Case.—The patient, a man about 48 years of age, was admitted to the surgical wards of the City Hospital early in September last. At entrance he gave an indefinite history of syphilis many years ago, and said that he had been troubled for seven months with a right inguinal hernia, which was treated at first by a truss. Of late, however, the truss caused considerable irritation, and had failed to properly retain the protrusion. Upon examination a right oblique inguinal hernia was found, which, upon standing, distended the scrotal pouch to the size of a large orange. This was easily reduced, and when in this condition the ring could be felt through the scrotal tissues to be large enough to admit the tips of two fingers. Aside from a moderately acute bronchitis, the patient presented no other evidences of disease. He was anxious to be permanently relieved of this trouble, and when told that an operation afforded a fair chance of success, he readily consented. He was, however, advised to wait a week or two, until his bronchitis had subsided. Two weeks later his symptoms had so far been relieved that the operation was decided upon. He was accordingly etherized, and an incision over the neck of the sac was made, dividing the tissues down the aponeurosis of the external oblique muscle. The aponeu-

rosis was next slit from the external ring to a point a little above the internal ring. The sac was then separated and the spermatic cord freed. This was accomplished with considerable difficulty, owing to firm adhesions, and the fact that the structures entering into formation of the cord were widely separated, and extended over a considerable area of the posterior surface of the sac. The sac of the peritoneum was then opened, and found to contain a portion of the small intestine, which was easily reduced. It was then drawn well up, transfixed, ligated by catgut, and cut off. The stump was pushed within the abdominal wall, and the conjoined tendon united to Poupart's ligament by means of three sutures of chromatinized kangaroo tendon. The aponeurosis was next drawn together by a continuous suture of fine silk-worm gut, and the skin united. A large sterilized cotton dressing was applied, and the patient placed in bed. No untoward symptoms followed the operation other than a slight return of the bronchial irritation, presumably caused by the anesthetic. Although the pulse and temperature gave no indication of infection, the dressing was removed on the fourth day. The wound was found to be united throughout, but slight pin-point areas of redness surrounded several of the cutaneous sutures. These were removed, and a wet bichloride dressing applied. At the next dressing the wound was found to have separated near the middle, for a distance of about three-quarters of an inch. Several days later a portion of the fine silk-worm gut, used to unite the aponeurosis, was found apparently separated from the rest, and presenting in the wound. This was removed, the small wound granulated rapidly, and healed without further trouble. A certain amount of induration was felt for some time over the course of the spermatic cord, extending to the testicle. This, however, was not specially tender to the touch, and completely disappeared after the healing of the wound.

About five weeks after the operation, and after the complete healing of the wound, the patient was suddenly stricken with an incomplete right-sided hemiplegia. This gradually increased, was accompanied by a progressively deepening coma, and finally resulted in his death, seven days after its inception.

Autopsy.—I will report only that portion of the autopsy which had to do with the parts involved in the operation for hernia. Palpation of the inguinal region and scrotum showed a complete absence of the abnormal induration which had existed over the course of the spermatic cord. Only a slight superficial thickening of the tissues remained in the neighborhood of that portion of the wound which had healed by granulation. The abdomen was next opened, and the parts inspected from within. That portion of the peritoneum lining the right inguinal region showed no trace of the operation other than a slight puckering near the internal abdominal ring. Firm pressure gave evidence of no weakness of the

abdominal wall. As a result of this pressure, however, a minute drop of whitish fluid was expressed from the center of the small puckered depression, and also a minute fragment of the catgut, which had been used to ligate the sac. The cavity containing this fluid was not larger than the head of a pin. The fluid was collected on a microscopic slide, stained and examined by Dr. DEADY, who had charge of the pathological laboratory. He reported that it contained a few leucocytes, a large amount of amorphous detritus, and a number of small shreds, thought to be some remnants of the catgut ligature. No micro-organisms were found.

A careful dissection was then made of the parts, from without inwards. The skin and subcutaneous areolar tissue were found to be moderately adherent to the aponeurosis of the external oblique muscle. The divided aponeurosis had firmly united throughout. At the upper extremity of the wound, a portion of the fine silk-worm gut was seen embedded in the tissues, in an apparently aseptic condition. The floor of the inguinal canal was found to be firm. The arched border of the internal oblique and transversalis muscles apparently united with Poupart's ligament. Between the aponeurosis of the external oblique and the floor of the canal, the vas deferens, spermatic artery, and a number of veins could be seen, apparently healthy, and lying separately. These were traced upward through the artificially made internal ring and downward into the scrotum, becoming more united and apparently bound together as they approached the testicle. None of the kangaroo-tendon sutures could be found, although several small tendinous shreds were embedded in the tissues.

As an opportunity for a careful post-mortem examination of the parts involved in this comparatively simple operation must occur but infrequently, and as the writer has been unable to find any report of such examination, occurring at an early period after the operation, in a case where a complete healing had taken place, it was thought that a brief statement of the result might be of interest.

New York; 68 West Forty-sixth street.

THE VALUE OF BACTERIOLOGICAL EXAMINATIONS IN THE PREVENTION OF DIPHTHERIA*

By H. E. WELCH, M.D.,

Health Officer, Youngstown, Ohio

THE study of bacteriology may be said to have had its beginning with the observations of ANTONY VAN LEEUWENHOECK, of Delft, Holland, in the year 1765; though it is during the past 15 years that this line of research has received its greatest impetus. From the very outset, its history is inseparably connected with that of medicine, and as it now stands its relations to hygiene and preventive medicine are of the utmost importance.

In order successfully and intelligently to combat and prevent the spread of contagious and infectious

diseases, we must first know the cause of the disease, its nature, the conditions favorable for its growth, and the best and safest method for its extermination. This is eminently the domain of bacteriology.

How much less dreaded by the educated classes has Asiatic cholera become since KOCH, in 1883, pointed out its specific cause in the spirillum cholerae. Typhoid fever is less feared and more successfully treated since EBERTH, in 1886, indicated its specific cause, and that it is largely a water-borne disease.

Unfortunately, the discovery of the cause of consumption has not done much to lessen the fatality; but scientific methods of disinfection and quarantine will ultimately lead to its being made a less frequent disease.

The surgeon of to-day owes much of his success to the bacteriologist, who showed him that he formerly got pus, a long convalescence, if not a fatal issue, simply because he did not cleanse his field of operation of the germ-life that is everywhere present.

In the year 1883, bacilli which were very peculiar and striking in appearance, were shown by KLEBS to be of almost constant occurrence in the false membranes from the throats of those suffering with diphtheria. One year later, LÖFFLER published the results of a very thorough and extensive series of investigations on this subject. He found the bacillus described by KLEBS in most, but not in all, cases of throat inflammations which had been diagnosed as diphtheria. He separated these bacilli from the other bacteria present in the throat, and obtained them in pure culture. When he inoculated these bacilli upon the abraded mucous membranes of susceptible animals, false membranes were formed, and in many cases death followed. In 1887, further studies by LÖFFLER added to the proof of the dependence of diphtheria upon the KLEBS-LÖFFLER bacillus.

In the year 1888, the first portion of the results of the very important investigations of ROUX and VERSIN was published, and the dependence of diphtheria upon the KLEBS-LÖFFLER bacillus may be said to have been established.

With these facts before us, what advantages may we expect from bacteriological examinations in preventing diphtheria? Naturally, the first question an interested person would ask would be: Are the examinations trustworthy? In answer to that question I will quote from the report of the New York City Board of Health, for 1894, as follows: "The examination by a competent bacteriologist of the bacterial growth in a blood-serum tube which has been properly inoculated and kept for 14 hours at the temperature of the body, can be thoroughly relied on in cases where there is a visible membrane in the throat, if the culture is made during the period in which the membrane is forming, and no antiseptic, especially no mercurial solution, has been lately applied." This is from an authority best qualified to give an opinion.

Membranous inflammations of the throat cannot be positively diagnosed by simple inspection.

* Read at the Sixth Annual Meeting of the State and Local Boards of Health of Ohio, January 31, 1896.

It is admitted by all clinicians in this disease that it is often impossible, either from the clinical history, or the anatomical lesions, or both, to make an accurate diagnosis of diphtheria. There are no constant differences which separate the simple, non-contagious forms of inflammation from the diphtheritic and communicable types; and it is only in a rather limited number of cases that an early and reliable diagnosis can be arrived at from data obtainable. This uncertainty leads physicians to hesitate to report suspicious cases until graver symptoms appear; usually, by this time a large number of persons have been exposed to the infection.

Those persons who are to be subjected to the annoyance of quarantine, have a perfect right to ask for as positive evidence as it is possible to obtain as to the contagiousness of the disease before being deprived of their liberties. These disagreeable features may be largely eliminated by a bacteriological examination of the membrane.

According to the statistics of the New York City Health Office, fully 40 per cent. of the cases reported as such are not diphtheria. Consider for a moment what that means to the state of Ohio, for it may be taken as a fair average the country over. Four families out of ten quarantined for diphtheria, needlessly deprived of their liberties and incomes, all of which might largely be avoided by an examination lasting scarcely twenty-four hours and at comparatively small cost!

One of the most prolific sources of the spread of diphtheria is so-called membranous croup. Eighty per cent. of the cases of croup reported to the New York Health Department proved to be diphtheria. Usually, the same thoroughness of quarantine and disinfection are not practiced in croup as in diphtheria, which is entirely wrong. The 80 per cent. of cases should be placed in their proper light by a bacteriological examination, and the danger of infection reduced to a minimum. We have been so impressed with this fact that, in our city, the "croup" cards have been thrown away, and only those marked "diphtheria" used.

The complete disappearance of the membrane from the throat does not always mean that the patient is free from the contagium. Researches by various observers have demonstrated that the bacillus remains in many throats from three to thirty days after the subsidence of the membrane. Therefore, no one should be released from quarantine until repeated examinations show the absence of the specific germ.

Bacteriological examinations are of value in determining what the treatment shall be. If they show the case to be one of diphtheria, then we should certainly use antitoxin, not only for its curative action, but also to immunize all those who may have been exposed. This remedy has been tried sufficiently long to merit the approval of careful observers.

Another and very important reason, to my mind, why these examinations should be made in the large cities of our State, is because it is a step in progress,

and we, as up-to-date sanitarians, cannot afford to occupy any but a forward position. Ohio has always been foremost in sanitary matters, and should not recede from that position by failing to adopt measures for public convenience and safety.

In the preparation of this short paper, I acknowledge great assistance from the works of ABBOTT on bacteriology, and also from the last annual report of the New York City Board of Health.

CHOICE OF METHOD AND INDICATIONS FOR RADICAL OPERATION IN PUERPERAL SEPSIS *

By LOUIS FRANK, M. D.

Associate Professor of Obstetrics and Director in the Bacteriological Laboratory, in the Kentucky School of Medicine; Obstetrician to the Kentucky School of Medicine Hospital; Gynecologist to the Louisville City Hospital, etc.

THE importance of this subject cannot be overestimated, and I fully recognize that it cannot be covered in the short paper which I shall bring before you this evening. The minor procedures, viz., drainage and curettement of the uterus itself, the value of which is well recognized, I shall not discuss, but shall confine my remarks to radical operations. By radical operation I mean opening the peritoneal cavity, either for the purpose of irrigating or breaking up adhesions, or for hysterectomy, and operations through the vagina either for the purpose of drainage or removal of the uterus.

The question which naturally arises is, When shall we resort to these severe operative measures? There is a time when they become clearly indicated, and when there can no longer be any question as to the advisability of such measures. There is also a time early in many of these cases when these operations should be done, and it is in this class of cases that a decision is extremely difficult. Ask yourself the question, when shall the abdomen be opened in puerperal sepsis? Or, what is more difficult to answer, When shall an hysterectomy be performed for a puerperal infected uterus? I know of no operation which the surgeon should consider so carefully as the removal of the uterus following childbirth. As previously said, there is a time when it must be done, and when the indication is very clear. When this becomes so, our patient is usually in an extremely septic state; the infection has reached its maximum, vitality is very low, and the chances of a successful operation are correspondingly diminished. It is a very grave matter to remove the uterus before we are absolutely assured of the necessity for so doing; still there is no question but it becomes necessary, or, at least, that it should be done early in many of these cases. There may not be tubal disease, the infection may be confined alone to the uterus. The infection very often extends into the uterine muscularis through the lymphatics; there may be foci of pus in the walls of the uterus itself, or sub-peritoneally; there may be a large area undergoing septic degeneration which has begun in the lining

* Read before the Louisville Clinical Society.

membrane of the uterus, and which it is impossible to remove by our minor operations. Such a case I have recently seen. In the case to which I refer, after a thorough curetting there was no amelioration of the symptoms; the pulse continued bad, and while there was no demonstrable lesion in the broad ligaments or in the tubes themselves, after the uterus was removed there was a large infected area where the tissue was extremely soft—clearly the result of a septic infection at the site of the placenta which with the fetus had been expelled as the result of an abortion.

We find that these uteri, which should be removed, undergo involution very slowly; they remain large, they are tender to the touch, they are usually soft, and have a boggy feel upon bi-manual examination; the temperature of the patient continues above the normal, there are rigors or chilly sensations, distention of the abdomen or slight tympanites,—in fact all the symptoms of a sepsis, which we know from the local manifestations, arises from the uterus. It is assumed that we have resorted already to our minor procedures: we have continued with irrigation, we have perhaps used peroxide of hydrogen and other antiseptics locally—still the woman continues to go down hill. If some radical measure is not carried out at this time, the disease will soon extend beyond the uterus, infecting possibly the peritoneal cavity itself, and we shall be compelled, not from choice, but from necessity, to operate. In such a case, by early operation, there is no question but the woman has a far better chance of recovery.

In a case such as I have outlined, I should consider the indication one for a radical operation. There are also others. Among these we have palpable lesions of the tubes and ovaries following rapidly upon childbirth—an acute pyosalpinx, if you choose, the result of puerperal infection. Another indication is the formation of pelvic abscesses. Tubal trouble may arise very rapidly after childbirth, and so in like manner may pelvic abscesses. Both of these clearly indicate surgical interference.

As to the manner of operating: The dexterity of the surgeon and his operative ability necessarily play a part. There is a certain class of these cases which unquestionably are better treated by the subpubic method; others are best treated by the abdominal method. Each operation has its indications, and while some men may prefer to operate upon all their cases through the abdomen, another may prefer to operate upon his through the vagina. We should weigh the condition carefully, and then determine which plan of procedure is the better. There is no question in my mind that the abdominal incision is preferable in a certain class of these cases. We should not allow our furor for a certain operation to carry us away; there is great danger of our becoming too enthusiastic in any one particular direction; we should consider carefully which will give the best result. In dealing with abscesses in the broad ligament, which do not extend

out of the pelvis, the better plan is to incise them through the vagina, breaking up all loculi, opening every abscess, irrigating thoroughly, and draining. If there is merely an induration at one or both sides of the uterus, if the formation of pus has not been absolutely demonstrated, though we may believe it to be present, the vaginal method is by far superior; for if no pus is found, the simple fact of an incision with drainage by gauze will cause a rapid improvement.

Conservative surgery may do much in these cases, and the vaginal operation done early is conservative surgery. I believe that many pus tubes could be prevented; that much damage by long-continued inflammatory processes in the pelvis, following childbirth, could be avoided, if the vaginal operation was carried out early in the case and gauze drainage resorted to. This has been fully demonstrated by HENROTIN, of Chicago. The operation of vaginal incision is also in a certain measure an exploratory operation. Very often it is almost, if not quite, impossible to say, in such cases as we have now under discussion, that pus has been formed in the tube, that we have a pyosalpinx. If we have opened the abdomen and find no pus, if we find no disease of the tube, we have endangered our patient to no good. The tubes may seem somewhat inflamed, they may be somewhat thickened; but we cannot demonstrate even then, positively, that they contain pus, and in all probability we should remove them and destroy the child-bearing function of the woman. If, on the other hand, an incision has been made through the vaginal wall, and the ovaries and tubes palpated, they may be left or they may be incised, should it be thought they contain pus, but they need not be removed. Abscesses of the broad ligament, or peri-uterine abscesses, we can much more easily approach through the vagina. There is no danger of soiling the peritoneum, and the danger of operative infection is markedly lessened. We do not open the peritoneal cavity at all, but freely incise and drain, as we would abscesses elsewhere in the body. If the pus sacs extend high up in the abdomen, it is then better to approach them by means of the abdominal incision; and even if we find only one abscess cavity it can be drained through the incision without danger of peritoneal infection, or we can make a counter-opening in the most dependent portion and drain through the vagina. In this latter class of cases, the advantage of the high operation is that often there may be pus sacs within the peritoneal cavity itself; that is, pus sacs formed by adhesions between the coils of intestines, confining the pus, as it were, in the peritoneal sac. These abscess sacs cannot possibly be broken up except from above; we cannot reach them all from below; they could only be thoroughly irrigated by going in from above.

In case of a septic uterus I believe that the vaginal hysterectomy is to be preferred. It is to be preferred because it is not necessary to leave a pedicle, it is not necessary to drag septic tissue through

the peritoneal cavity; we have a natural method of drainage, and the operation is just as easily and, if anything, more quickly done.

I would advise the use of clamps. In a gangrenous uterus, the result of puerperal infection, it is questionable whether we should operate from below with clamps. The surrounding tissues are usually so rotten that it is impossible to make the clamp hold. These cases are usually to be recognized by the extreme friability of the cervical tissue itself. That the operation of vaginal hysterectomy is not as artistic as hysterectomy by the abdominal route, no one will deny. Intestinal adhesions are often left behind, portions of infected tube or infected tissue are frequently not removed; but the results are nevertheless better than by the abdominal method. The operation is in many instances very tedious, and the work may be to a large extent done practically in the dark; still, when we consider the greater chance of infection by removing the uterus from above, doing a total enucleation, and the dangers and prolonged convalescence which follow a partial hysterectomy either treating the stump extra-peritoneally or intra-peritoneally, to my mind there can be no question as to which method is preferable.

There is one other indication which I have failed to mention, and that is purulent puerperal peritonitis. In purulent peritonitis, the result of puerperal infection, the abdomen should be opened from above. While these cases are, as a rule, fatal, they should be given the chance. Irrigation, thorough in character, breaking up of all adhesions, drainage through the abdomen, and also through the vagina, as indicated, should be the rule.

As I said in opening my paper, this is a subject which will often tax the judgment of the surgeon, and we can lay down for many of these cases no hard and fast lines. In those where the lesion is palpable, where by bi-manual examination evidences of gross pathological change can be demonstrated, it is easy to decide what to do. I have seen, and recently reported to this society, a case in which I was almost sure an hysterectomy would be necessary. The operation was deferred, and the patient has made a complete recovery. We should give our patients every possible chance; we should keep them under close observation; and so long as there is any improvement whatsoever, or so long as they do not lose ground, unless there is absolute evidence of disease of the annexa, or of the surrounding structure, which cannot be removed otherwise than by surgical means, I should delay operation in the hope that it might be entirely avoided, as it was in the case I have just mentioned. We have all seen large pelvic exudations disappear under hot-water irrigation and local treatment. That many of these do not completely recover no one will question; but if the condition left after this infection has run its course is not such a one as will endanger the life of the woman, or as will destroy her usefulness to society, I then believe she should not be operated

upon. That some of them do recover permanently we all know; and even if they do not, in many of them operation may be deferred for some time, thus giving them a far better chance to recover.

Louisville, Ky.

MAGGOTS, WITH EAR-DISEASE

By ROBERT BARCLAY, A.M., M.D.

Member of the American Otological Society; Formerly Assistant Aural Surgeon New York Eye and Ear Infirmary, New York; Aural Surgeon: St. Louis City Hospital, Missouri Pacific Railway Hospital, St. Louis Baptist Hospital, St. Mary's Infirmary, South Side Dispensary, Mariæ Consilia Deaf and Dumb Institute, House of the Good Shepherd, etc., St. Louis.

WHILE, in special aural practice, it is by no means remarkable to find maggots in an ear previously long affected with purulent inflammation, yet in general practice to find them swarming in an ear diseased but a few days, or affecting the ear through the nose, is certainly extraordinary enough to excite remark. And the subject seems worthy of more than superficial attention, inasmuch as the false feeling of security engendered by the infrequency of such exceptional cases has rendered us, generally, unreasonably indifferent and careless toward the possible inroads of this destructive insect—from the housefly—particularly in the early stages of ear-disease. That it is against the possible, and not alone the probable, evil here that prudence warns us to be on our guard, is indisputably attested by the following cases, which, through the courtesy of the Superintendent of the St. Louis City Hospital, came under my observation:

Case No. 604,429.—Five days before our consultation the patient—a scene-painter, 35 years old—had been severely and extensively burnt, on the right side of his head and body and right arm, by a gun-powder explosion.

Very shortly afterwards his wounds were properly dressed, and he was thereafter very carefully attended.

Although the ears had been previously healthy, discomfort in, and discharge from, the right ear were noticed soon after the injury.

On examination of this ear, upon the fifth day of his illness, the drumhead was found perforated; and in the rather thin, aural discharge, many small maggots were found swarming.

Under instillation of peroxide of hydrogen, syringing with a mild corrosive-sublimate solution, and insufflation of boracic acid, the ear-disease rapidly disappeared.

Case No. 604,428.—After having been ill for three weeks with alleged "malarial fever," this Scotchman, 47 years old, found himself afflicted with suppurative rhinitis, attended with the development of swarms of maggots in the nose, technically termed "*myasis narium*."

On applying for medical aid, he was placed upon a course of treatment with corrosive-sublimate solutions, peroxide of hydrogen, chloroform, etc., locally; internally, with a highly nutritious diet and tonics.

At the time of our consultation, in the third

month of his illness, the stench of his breath was horrible. The bridge of his nose had broken down. He suffered much from pain in the back of his neck, and, upon lying down, in his ears also. He had lost much flesh. The hearing of both ears had become greatly impaired, and from the left one escaped a fetid, purulent discharge.

No maggots, however, had as yet been taken from this ear.

Growing dissatisfied with his surroundings, he removed to another eleemosynary institution, where, I have since learned, he grew steadily worse, until, after great suffering, death finally put an end to his torment.

The third and last one is *Case No. 604,518*.—Two months before our consultation, this Irishman, 48 years old, had slept out of doors while intoxicated. His sleep was followed by general weakness, which gradually increased. One week later he blew out of his nose a lump of maggots. His breath had become very offensive and his throat very sore. He then applied for medical aid.

The first application of chloroform to the nares brought out 64 maggots. His soft-palate was found highly inflamed, having an elliptical perforation which extended, horizontally, almost completely across the arch; and the uvula and the

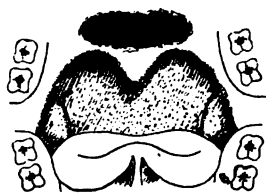


FIG. 1



FIG. 2

pendulous portion of the soft-palate were edematous (Fig. 1). It was deemed best to remove this without delay, by dividing its lateral attachments.

He was treated twice daily; and within 14 days after his eventful sleep, 7 after blowing out the first mass of maggots, 139 of these insects had been removed from his nose. No live ones were removed after the sixteenth day. One dead one came away before the thirty-second day; five more between this time and the end of the second month, when the consultation was held.

Upon that occasion, besides the phenomena essentially characteristic of his nasal myiasis, it was found that a large notch had sloughed out of the palate (Fig. 2); and he complained of symptoms indicative of middle-ear-disease, principally of deafness, which had affected him during his entire illness.

On examination of the ears, both drumheads were found dull and somewhat retracted; the eustachian tubes, however, were pervious to Politzer-inflation.

St. Louis; 3211 Lucas avenue.

THERAPEUTIC ITEMS

Grippal Pneumonia and Its Treatment.—G. LEMOINE (*La Clinique*, II, p. 165)

Pneumonia is a complication of grippé which often follows congestion. It may manifest itself in different forms, but it is always characterized by great asthenia and by a sort of paralysis of the pneumogastric nerve, which is the cause of the irregularity of the heart's action and of the bronchoplegia. In such cases L. resorts to cupping, and administers heart-tonics in a systematic manner from the beginning of the disease, before the heart has lost its contractility. He prescribes digitalis either in infusion, giving 0.5 gme. ($7\frac{1}{2}$ grn.) of the leaves daily for two days, then decreasing the daily dose by 0.1 gme. ($1\frac{1}{2}$ grn.); or he prescribes dioxitin, giving 30 to 50 drops of a 1:1000 solution once daily. An exclusive milk diet is maintained, which also helps the remedy by stimulating the kidneys to action. Caffeine may, after a few days, take the place of digitalis as a tonic of the pneumogastric nerve; its use should be continued for a considerable length of time. If necessary, injections of ether may be administered; or, if that be insufficient, strychnine sulphate in daily doses of 0.002 to 0.003 gme. ($\frac{1}{30}$ to $\frac{1}{10}$ grn.) may be given either per os or by injection. Kola, coca, and alcohol are indicated during the whole course of the disease, to overcome the prostration.

Stypticin as a Hemostatic.—GOTTSCHALK (*Brit. Med. Jour.*, 1896, No. 1828, p. 7)

The author reports the results from the use of stypticin in 47 cases of uterine hemorrhage. This new hemostatic is obtained by oxidation of narcotine, one of the opium alkaloids. It may be given hypodermatically, or, more conveniently, per os in powder or gelatin pearls.

Dr. G. finds that 0.05 gme. ($\frac{3}{4}$ grn.) may be taken five or six times a day without any untoward effects. It has a great advantage over hydrastis and other uterine hemostatics, in that, as might have been expected from its source, it possesses a well-marked and potent sedative action which is both local and general, and hence specially indicates its use in dysmenorrhœic affections. Stypticin promptly checks hemorrhage resulting from pure uterine subinvolution—that is, that due to muscular atony and not to retention of membranes, etc. In fungous endometritis, it is a valuable adjuvant to the curette; it is very useful when the patient objects to curetting, and particularly in those cases in which this treatment does not stop the hemorrhage. It is also useful in bleeding caused by fibroids or the climacteric. In purely congestive menorrhagia it is well combined with hydrastinine.

Stypticin is powerless to control the bleeding of uterine polypi, and is contra-indicated in threatened abortion, or indeed in any of the hemorrhages of pregnancy, as it has a marked power of stimulating uterine contraction. This may be induced by it directly or result indirectly from the anemia produced by its vaso-constrictor action. In menorrhagia the drug is best given four or five days before the period, and continued till bleeding ceases; this not only diminishes the hemorrhage, but also necessitates the use of much smaller doses.

In all Dr. G.'s experiments no other treatment than that of stypticin was adopted.

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ROENTGEN RAYS.—In this issue the BULLETIN, in a special article, offers its readers the views of the distinguished Professor of Physics at Harvard University in regard to the possibilities in surgery from utilizing the cathode rays. It will be noticed that we possess from this authority a calm, impartial estimate of this new "photography," written from the standpoint of knowledge acquired so far. It is not unlikely that Professor TROWBRIDGE, after further experiment, may be willing to be more sanguine; but the numerous researches which he has made in probably the best equipped laboratory in this country, scarcely justify the claims advanced by many of our medical and lay contemporaries.

THE *Medical News*, late of Philadelphia, now of New York, states editorially in its issue of February 8th, that, with the exception of the *Am. Jour. of the Med. Sciences*, it (the *News*) is the only journal in the country that properly remunerates its contributors. Wake up, Mr. *News*, and think a little about the BULLETIN, whose policy as regards cash payment for contributions exceeds in liberality that of any journal in the world. Pray retain some of your spirit of brotherly love!

THE NEW "CURE."—The new "cure" referred to in our issue for February 15, it seems is not after all applicable to tuberculosis, if current interviews are to be believed, but is a sure cure for malaria and septicemia. The obstetrician need no longer use the curette, or the irrigating tube, or, indeed, think for one minute of removal of the uterus and the appendages! All he has to do is to manufacture this cure according to the published formula (if he can), administer it to his patients when he is unfortunate enough to have a case of puerperal sepsis, and the germs will exude from the pores under the sweat-producing compound which enters into the "cure." Of course it will be wise for him to provide himself with a shotgun and to learn how to use it without damage to himself or his patient. The object of the gun will be to destroy the germs as they make their way from the sweat ducts, or else what in the world is to prevent them from entering the patient again or, *horribile dictu*, the doctor himself!

PLACENTA PRÆVIA.—Of the methods of treating placenta prævia, Barnes's bags and Braxton Hicks's bipolar version have taken the lead for a generation, and undoubtedly have given much better results than any of the older methods. Papers have been published recently upon this subject by HARRIS, MICHAELIS, and MARX, in which the method recommended is: packing the cervix with iodoform gauze until it will admit a finger, followed by rapid digital dilatation of the cervix, by podalic version, and delivery. The operation is always performed under anesthesia. The results obtained have been uniformly good, both as regards the mother and also the child, when the latter had reached the age of viability, and had not died before the operation was begun.

The chief objection urged against this method has been the difficulty in dilating the cervix; but in HARRIS's cases the average time consumed in this procedure was only nineteen and six-sevenths minutes, and the longest time required in any case was twenty-two minutes, while the same operation performed with the aid of Barnes's bags has often required several hours.

In the discussion following MICHAELIS's paper before the County Medical Society, the opinion was expressed by Drs. MURRAY, TUCKER, and FRUIT-NIGHT that Barnes's bags are "a relic of barbarism," and should be discarded in all obstetrical operations. Their liability to rupture at a critical moment is proverbial, and the difficulty of keeping them aseptic

is no chimera, as is shown by the large number of septic cases following their employment. They have been almost entirely abandoned in the large obstetrical hospitals of this city, and it seems that they may soon go the way of the Lister spray and other similar devices of the last generation.

ANOTHER POST-GRADUATE SCHOOL OPENED.—Every venture in this direction conducted for the grounding of practitioners in modern methods of research and of practice must tend to the alleviation of suffering, the palliation of disease, and, above all, prophylaxis. The institution here referred to is called the Boston Polyclinic. It aims to utilize the clinical advantages offered by the large general hospitals, as also by those devoted more particularly to the specialties. A noteworthy point is that matriculates are offered the opportunity of visiting the sick poor at their homes with the district physicians, which enables them to study methods as they are necessarily applied outside of the wards of a hospital, where self-suggestive exigencies, the result of the very poverty of the sick, do not arise. We do not question but that this institution will meet with that meed of success which has characterized the post-graduate schools of this city, since, from the reading of the prospectus, we assume that the main object of the teachers is the giving of knowledge, and not the personal aggrandizement supposedly connected with the title of professor.

THOSE WHOSE DUTY it is to enforce laws that relate to sanitation and the prevention of disease are awakening to a realizing sense of this duty. The sole way to prevent the commission of acts which may lead to or favor the dissemination of disease is to visit the offenders with swift punishment as soon as they are detected. In these days of advanced sanitation, when we know that many diseases difficult to cure may be prevented from entering the system, provided only certain precautionary measures be taken, it should constitute a penal offense on the part of the man who disregards these precautions and thereby endangers the health or leads to the death of one or more members of the commonwealth. The dealer in milk, for example, be he farmer or middle-man, who does not see to it that the article is pure and free from contamination, subjects those whom he supplies to the risk of disease—of infection—and practically is as guilty as though, with evil intent, he administered a poison. Similarly, an individual or a corporation allowing a stream which supplies a town

or city with water to become polluted should be held rigidly responsible for the resulting damage to the physical well-being of the community.

A case in point is offered by an occurrence in a Western city where the superintendent and the engineer of a water company have been indicted for manslaughter in that it is claimed they had caused, through criminal negligence, the death of a young man who became infected with typhoid, carried, it was again claimed, through pollution of the water. At one and the same time there existed in this same city 1000 cases of typhoid, and the case of this individual was made a test one. It was proved that the main supply of the water company was in a filthy condition, being near the mouth of a large sewer. The case has not yet been adjudicated, and we will watch with interest for the verdict. This probably will not result in punishment at all adequate to the offense, should the charge be proved; but this case and the recent one in a neighboring State, brought against a dealer in infected milk, prove that the community at large is learning a great deal about the facts underlying sanitation and the prevention of disease; and when this knowledge has reached its maturity, we may hope to see many diseases which are now little less than scourges disappear from off the face of the earth. When that day comes, may due credit be given the medical profession of this age whose endeavor is toward the prevention of disease, and not so much, as in the past, toward the securing of very problematical cure when once disease has entered the system.

TINKERING WITH MEDICAL LAWS.—It is high time that tinkering with medical legislation in the State of New York should cease. No sooner do we secure an equitable law, under which the practice of medicine is becoming regulated for the good of the community and without damage to the rights of the individual, than some legislator offers a bill in the Senate which, if it pass and receive the signature of the chief executive, nullifies in a measure all the good accomplished or, at any rate, upsets the machinery in existence for the regulation of practice in this State. So far as the BULLETIN can find out, the present law commends itself to the leaders in the profession and to the chief schools for medical instruction. Under its provisions the various county medical societies are beginning to rid the community of quacks and impostors. A result of its enforcement is the obtaining of a class of practitioners better qualified for the high calling of medicine, and the teaching faculties are being obliged to

raise their standards, so that, on the whole and from every standpoint, there can be no complaint except from those who are unable to pass the required Regents' examinations, or from medical schools who have ever been averse to raising their standards very likely because this necessarily means fewer students, and therefore less fees to be divided among the members of the faculty. For the feelings of those who object to the present law because of inability to pass the requisite examination no one cares, since such practitioners are not desired in this or in any State. For the large receipts or the small receipts of medical schools, the vast body of professional men does not care, nor does the community. Indeed, the sooner medical schools and medical faculties learn that they are only wanted so long as they are in line with higher medical education the better. If they cannot get into line, the sooner they go to the wall the better for the community.

The bill which Senator STANCHFIELD has introduced at Albany, and which is now in the hands of the Judiciary Committee, is a bad one and an unwarranted one. It is objected to by the Regents, by the executive body of the New York County Medical Society, by the Committee on Legislation of the State Medical Society, by prominent representatives from the College of Physicians and Surgeons and the University Medical School of this city, and by scores of others. The parties behind the Senator favoring this bill are very likely the same who from the very start have bitterly fought all attempts at raising the standard of medical practice in this State. The BULLETIN hopes this renewed attempt will fail, and, should the bill pass the Assembly, earnest protests should be sent to the Governor, even though so far he has shown himself on the side of higher education, and we believe he will not fail the cause now, should this bill ever reach him.

THE MANHATTAN STATE HOSPITAL.—It is a matter of congratulation to patients and taxpayers alike that the Manhattan State Hospital for the Insane has at last been established, Mayor STRONG having approved and Governor MORTON having signed the O'GRADY-CANTOR bills passed by the Legislature, January 15th.

Similar measures were passed by the Legislature of 1895, but failed to receive the Governor's signature because they had not been approved by the Mayor. The Mayor did not deserve the blame he received in this matter. He wisely withheld his approval of last year's bill because it provided that the

city must pay the taxes due the State, although at that time decision upon the matter was pending in the Court of Appeals. Decision has since been given to the effect that the city must pay these taxes. The new bills, now part of the law of the State, provide for the transfer of the dependent insane of the city to the care of the State; and also for the issuance of bonds for over \$2,000,000 by the Comptroller to pay the arrears of taxes for New York's share of the care of the insane of the State. Among other measures, the first bill provides that the city shall give the State a lease of the lands and buildings on Ward's Island and at Centre Islip for one dollar a year, the lease to be terminated on 15 years' notice; also to grant the State the right to use the insane asylums on Hart's and Blackwell's islands for five years. It places the dependent insane of New York city definitely under the charge of the newly created Manhattan State Hospital, and further provides that this hospital shall be conducted by a board of seven managers, two of whom shall be women, to be appointed by the Governor for terms varying from one to seven years.

The control of the insane by the State is desirable chiefly for the reasons that the patients receive better care and that the taxpayers suffer less expense under such a system. No unbiased person, who has had personal knowledge of asylum life in this State before and after the creation of the State Commission in Lunacy, can fail to admit that the condition of the patients, in both private retreats and public asylums, is notably better than it was previous to 1889. There was great opposition shown toward the members of the Commission when newly appointed, and for the first part of their incumbency their way was as hard as if they had been transgressors, rather than genuine reformers. During the first few years of their official existence it was necessary for them to be peremptory and exacting. Perhaps, in some cases, there was a disposition on the part of one member of the Commission to be unreasonably dictatorial. But in a short time he learned wisdom with experience, and the Superintendents learned obedience; the attitude of each became changed, harmony reigned, and the efficient work of the members of the Commission became patent to all. Probably no opposition to the State Commission in Lunacy remains to-day except in the minds of asylum officers who have been removed for cause, or of managers of asylums whose sins of omission and of commission were justly criticised, and who were partly shorn of their power by the Commission. Such ex-officers and such ex-managers

occasionally ventilate their grievances in print or in private conversation. But the Commission wisely pursues the dignified course of inattention, and ignores the attacks, though in many cases it could undoubtedly produce from its records in Albany evidence that would not only justify its own acts, but also overwhelm with shame and confusion the aggrieved ex-officers and their allies.

On February 3d, Governor MORTON sent to the Senate the names of two women and five men to be managers of the Manhattan State Hospital, as told in a recent number of the BULLETIN. The entire absence of politicians from the new Board is an encouraging feature. The absence of medical men from the Board is to be deplored. It seems to be the policy of the city to prevent the community from enjoying the services of medical men in positions for which their training and lifework fit them. Matters of a semi-medical nature will surely come before the Board, and in certain cases the Board will be obliged to seek the opinion of physicians. For such opinion it ought not to be compelled to go outside of its own body.

The people of New York city are to be felicitated on the fact that such an eminent jurist as Judge HOWLAND, and such able financiers as Messrs. SELIGMAN, MCANERNEY, and BOWDOIN are members of the new Board. It is within the power of the Board to select a new executive from the eligible list of the Civil-service Board. It seems to be the prevailing feeling that a change in the executive is desirable. The people have not forgotten the abuses and neglect exposed during an investigation, about two years ago, of the condition of the female dependent insane; and while they know that the old local control seemed largely to blame, yet naturally they wonder why the General Superintendent was ignorant of the general character of the accommodations, the food, and the attendance of the patients.

The electors who have urged their representatives to pass the bills putting the dependent insane under State care will be displeased and disappointed if there is no change in the General Superintendent of the new hospital.

LAY CRITICISM OF MODERN SURGERY.—The daily press lately has been publishing criticisms upon the course of one of our prominent surgeons in connection with cases of appendicitis, one of the papers going to the length of even quoting the names of several prominent people who have died following operation by this particular surgeon. They are all

tabulated as cases of appendicitis, and among them the case of the late ELLIOTT F. SHEPARD is included, the writer of the article apparently having forgotten that this death resulted not from operation for appendicitis, but for a vesical calculus, and was apparently due to the anesthetic. The articles in question have been so written that they cannot but prejudice the lay mind, not only against this particular operator, but also against any surgical procedures, particularly in appendicitis, and the effect upon the laity of this kind of journalistic enterprise is shown in a letter published in the *New York Tribune* of February 23. This letter, which is signed "Layman," asks how soon the reaction is going to set in against operations in appendicitis in view of the tremendous fatality—which in the latest article upon this operation based on 100 cases is 2 per cent.—following this method of treatment. It is perfectly evident that neither the layman, nor, for that matter, many general medical practitioners, are as yet sufficiently imbued with the importance of prompt surgical interference in these cases, and the extreme danger, resulting from delay. The case which has brought out all of this journalistic interest was one in which operation had been delayed for eight days, and the patient was practically hopeless at the time the surgeon first saw her, yet it is always possible that in these cases of intra-abdominal disease even an apparently hopeless operation may save the patient's life, and it was simply with this idea in view that the operation was undertaken. The criticisms that have appeared, have evidently emanated from people who were absolutely ignorant of the conditions surrounding the question of appendicitis, and as they can only prejudice the popular mind against prompt surgical interference, they will simply increase the mortality from inflammation of the appendix. The only hope on the part of the patient when pathological changes in this part of the intestinal tract have been fully established is the prompt use of the knife, and when the general practitioner recognizes the fact in all its magnitude as he should, that in the treatment of these cases he needs to call the surgeon at the earliest possible moment, and should attend the case in association with him, the death rate will be further reduced, and cases similar to the one alluded to will be even more of an exception than they are at present.

Medical Practice in Ohio.—A bill has been introduced into the Legislature of the State of Ohio having in view the regulation of the practice of medicine in that State. The essential features of the bill are similar to those in New York State.

GENERAL MEDICINE

Department Editors

WILLIAM CHARLES GUTH, M.D.

and

HENRY TURNER BROOKS, M.D.

Collaborators

ADOLPH ZEH, M.D., ADOLPH BARON, M.D., JOHN HOCH, M.D., WILLIAM VISSMAN, M.D., WILLIAM Y. FINCH, M.D., GEORGE W. BLANCHARD, M.D.

The Diagnosis and Treatment of Gout.—JOSEPH N. BISHOP (*Med. News*, LXVIII, 1896)

The regular symptoms of gout are mentioned and then the author goes on to speak of "suppressed gout," which may immediately follow an acute attack or replace an attack of gout. There may be severe vomiting, pain, diarrhea, and profound depression; or there may be cardiac failure, manifested by dyspnea, irregular heart action, and pain referred to the heart or to the left shoulder. It is well for us to keep these heart symptoms in mind when we meet with obscure, severe, and often fatal cardiac attacks accompanied by extreme dyspnea, with failure of the heart's action and rhythm.

Most of these cases have been attributed to uremia, but to the author's mind it seems that at least a few of them might be cases of suppressed gout. Dr. B. thinks that about the approach of the climacteric we will find in very many women all the manifestations of gouty trouble. Among some of the more irregular manifestations of gout may be found nervous, gastric, cutaneous, pulmonary complaints, or the organs of special sense may be affected. The gouty habit or lithemic state may appear in infants; infantile eczema may be due to hereditary gout when obstinate to treatment. Chronic bronchitis, sclerosis of vessels and valves and gastro-intestinal disorders are often of a gouty origin.

Among the nervous manifestations of gout in its recurrent form migraine is the commonest. Neuralgia of the sciatic, intercostal, and fifth nerves, or, more rarely, other nerves, are often gouty in origin. Gouty subjects are liable to neuralgic pains of a shooting, drawing character, lasting a moment and then disappearing in almost any part of the body. A true neuritis, particularly of the sciatic nerve, is not uncommon in such subjects.

Occasionally there may be a definite failure of power lasting a few days or weeks, without objective symptoms, and disappearing. There may be feelings of tingling and formication in the legs, dull aching, and sometimes actual pains lasting for days or weeks. Indirectly due to gout are the effects of the interruptions of circulation which go with gouty endarteritis; the thickened cerebral arteries may give rise to attacks of dizziness, temporary loss of consciousness, and even impaired mental conditions.

The management of gout is chiefly a question of hygiene, which treatment includes not only the modification of air, mode of life, food, and drink, but also the skillful use of drugs. Dr. W. H. DRAPER and others have found by clinical experience that some gouty patients do well on animal diet, thus controverting the theoretical conclusion that meat is to be avoided. Dr. DRAPER thinks that a gouty patient does best upon a diet in which there is a good proportion of proteid food, along with a fair amount of starchy food as well.

There is no specific drug treatment for gout. Under the head of drug treatment the use of min-

eral waters is mentioned. Lithium should be given in definite amount. Dr. B. says artificial waters are just as good as the native mineral waters, and have the advantage of a definite formula and safety from possible infection in rural neighborhoods.

Colchicum is of great value in controlling the symptoms of gout, relieving the pain of acute attacks, and modifying the course of chronic cases.

We have not arrived at positive conclusions yet from the use of piperazine, which is attracting so much attention.

The use of iodide of potassium in chronic gout is well established. The drug treatment of gout is so much a question of adapting the well-known therapeutic agents to particular conditions that details, the author says, are best left to individual judgment.

The Structure and Absorption Power of the Peritoneum.—Dr. G. MUSCATELLO (*Virchow's Arch.*, 1895, CXLII, No. 2, pp. 327-360)

In 1862 VON RECKLINGHAUSEN was able to determine by animal experiment and microscopical examination that, after introduction into the abdominal cavity, various finely granular substances (milk, cinnabar, india ink, oil, egg-yolk) were taken up through the central tendon of the diaphragm by the lymph vascular system, and a short time thereafter appeared in the mediastinal lymph glands and the thoracic duct. This observation was soon confirmed by the researches of LUDWIG and SCHWEIGER-SEIDEL (1866). AUSPITZ (1871) not only observed that rice flour was absorbed through the diaphragm when introduced into the abdominal cavity of an animal, but showed that the granules appeared in the blood of the aural cartilage after the lapse of one hour, and a few hours later were deposited in the lungs, spleen, and kidneys. BECK (1893) states that the first granules appear in the lymph stream of the thoracic duct in one to two hours after introduction into the abdominal cavity. By these experiments it was established that that portion of the peritoneum corresponding to the central tendon of the diaphragm possessed certain powers of absorption for various foreign bodies, and that the substances thus taken up were subsequently deposited in the different organs.

Other researches were made to settle the question whether, aside from the diaphragmatic portion, other parts of the peritoneum permitted the entrance of foreign bodies to the lymph channels. DUBAR and REMY (1882) were the first who championed the view that other absorption areas existed. They asserted that absorption of finely granular substances introduced into the peritoneal cavity took place by way of the lymph as well as the blood vessels—in the first instance exclusively through the diaphragm, in the second through the roots of the portal vein. Positive proof of this assertion is wanting in their work. The number of absorption points was increased by the researches of MAFFUCCI (1882). He concluded that, in addition to the diaphragm, the omentum, the ligamentum latum, the ligamentum gastro-hepaticum and gastro-splenicum, Douglas's folds, the mesorectum and, exceptionally, also the mesentery, take up finely granular substances. It must be remarked that MAFFUCCI, in drawing his conclusions, considered chiefly the results obtained after six hours.

MUSCATELLO's results appear to conflict with those obtained by the authors above mentioned. In the first series of experiments the author of the present paper employed rabbits and dogs, preferably the

latter. As, according to ELLENBERGER, the dog possesses a comparatively slightly developed lymph vascular system, examination could be confined to a quite small number of lymph glands, whereby the determination of the routes by which the granules are distributed throughout the body was greatly facilitated. Of granular substances, india ink and carmine were used; the latter most often, for the reason that india ink may be confused with the fine, black pigment granules which are normally present in the lymph glands, spleen, liver, and other organs. The granular suspension, made with physiological salt solution and warmed to 37° C., was injected into the abdominal cavity through a canula introduced in the linea alba below the navel. The amount of fluid was so measured that 15 ctm. of the same was allowed per one kilo of animal. In a few experiments, undertaken for the study of the absorption of red blood corpuscles, salt solution mixed with defibrinated blood from the same species of animal was introduced into the peritoneal cavity. The author found that the finely granular substances penetrated the diaphragm with great rapidity, and could be seen in the retrosternal and mediastinal lymph glands within 5-7 minutes after introduction into the abdominal cavity. It was also observed that the rapidity of penetration of the granules could be increased during the experiment by placing the animal's body in an inclined position, with the head dependent. The author's conclusions are :

1. The diaphragm is the only portion of the serosa which is designed for the absorption of granular substances. This absorption takes place with extreme rapidity.

2. There exist in the abdominal cavity continuous fluid currents directed toward the diaphragm. It is the function of the mediastinal lymph glands to collect the lymph originating in the abdominal cavity.

3. The endothelial cells of the serosa possess in part long processes. Under normal conditions they form a uniform layer possessing no openings. The formations described as stigmata or stomata are accidental products. At many points rounded spaces, which are covered on the surface by the lamella superficialis, may originate by retraction of the protoplasm of two or three neighboring cells. Under ordinary circumstances, leucocytes are found here and there between the endothelial cells.

4. The limiting membrane, which is perforated in the district of the peritoneum diaphragmaticum, shows no trace of such openings at many other localities.

5. Finely granular substances (carmine) and soft, pliable bodies (red blood corpuscles) penetrate the endothelial layer of the diaphragm in great part in a free state, by pushing their way between the endothelial cells, in less part as inclusions of leucocytes. Large, firm bodies (starch) are in great part transmitted through the diaphragm by the agency of wandering cells; a few, almost exclusively the most minute, can pass through the endothelium by way of the openings left by the leucocytes. The transmission of the largest of these granules takes place through the intervention of leucocytes, which spread themselves over the surface of the foreign body, thus inclosing it in a contractile layer.

Diphtheria and Puerperal Fever.—Dr. BUMM (Ref. in *Fort. d. Med.*, 1896, XIV, No 1, p. 24)

Puerperal cases in which the wounds of the genital canal are covered with a white or grayish-white deposit are generally designated by the name "puerperal diphtheria." Accurate researches, especially

by VIDAL, which BUMM has confirmed, show that in these instances infection with streptococci is the etiological factor, as in other forms of puerperal sepsis. BUMM further showed that the diphtheria deposits represent nothing else but necrotic tissue.

In the present paper, however, BUMM reports a case of genuine diphtheria of the genital tract of a puerperal woman, in which the observations and examinations were most minutely conducted. This is the first case in which, through the demonstration of the specific bacillus, a genuine "puerperal diphtheria" has positively been determined. The membranes had a glistening white color, and were continuously distributed over the whole surface of the genital tract. Inflammatory phenomena in the neighborhood of the uterus were absent. Although the case was also complicated with diphtheria of the throat and nose, the patient recovered. No cicatricial formation remained in the genital membrane.

Serum Treatment of Diphtheria at the Carolinen-Kinderspital, Vienna.—Dr. KNOEPFELMACHER (*Wien. klin. Woch.*, 1895, No. 50)

The author treated 100 cases of diphtheria. Klebs-Löffler bacilli were found in but 78 cases, though all were of the opinion that the statistics might be compared with those of previous years when the bacillus was not a factor in diagnosis. Half of the cases were mild or moderate; the greater part of the remainder were severe. Very few suffered with croup, and the number of septicemias was limited. More than half of the patients had slight affection of the nose. It is worthy of note that the number of patients under one year was less than in 1892-93. With all these favorable conditions the mortality was 21 per cent.

While the author had observed some deaths following localized diphtheria before the serum period, there were none after its use. Of the 38 croup cases, stenosis disappeared in 12. This, however, he had often noticed with other treatments. There were only 3 septic cases, all of whom died in spite of antitoxin. As statistics do not show the positive value of the serum, clinical observations are given. Prompt improvement in the general condition was not determined. This may be due to the fact that the severe cases were complicated by croup; in these an improvement was visible only after operation. In those cases apparently recovering, improvement in general condition was not marked until 24 hours after injection of the serum. In a majority of the complicated cases, after the first days, the temperature gradually became normal, as was often observed before the use of serum; but the rise which is sometimes seen between the fourth and fifth day without complication was not noted in a single instance.

The formation of the membrane was impeded. This was particularly marked in laryngeal cases. In two cases a mild recurrence of the disease took place several days after the injection. Albuminuria, with scanty amount of urine containing leucocytes, epithelial cells, hyalin and epithelial casts was noted in 27 cases. In 17 it was present before, and in 10 others it appeared after, injection. This change in the urine was usually slight and disappeared in ten days at the latest. Only once did hemorrhagic nephritis occur, and the author thinks this was due to scarlet fever. This complication appeared ten days after the child had been dismissed, and disappeared in a few days. In 14 cases tested for albuminuria, 12 showed a positive reaction before injection; this, however, was very much increased in the urine voided a few hours afterwards. One of the other cases gave

a negative result for several days; the other showed a marked reaction after injection, but this disappeared in a few days. Two cases suffered with marked dilation of the heart and irregular, small, rapid pulse. Post-diphtheritic paralysis was observed in but 5 cases, but this may have been due to the fact that the patients were dismissed very early—before paralysis appeared in some cases. General exanthema complicated 13 cases. Two children suffered with fever and gonitis, which developed on the 15th or 16th day after injection.

Gastro-Intestinal Antisepsis.—BARDET (*Sem. Méd.*, XV, 1895, p. 518)

Since the investigations of BOUCHARD and DUJARDIN-BEAUMETZ, antisepsis has occupied an important place in the treatment of gastro-intestinal affections. Of the various antiseptics used it has been found necessary to discard the more active compounds as dangerous. Thus the salts of mercury, except calomel, have been thrown aside for substances less active but less toxic, such as the aromatics and the naphthol compounds. The admission of the efficacy of intestinal antisepsis has been based to a considerable extent upon the deodorization of the stools and the diminution of the amount of toxins in them and in the urine.

The deodorization of fecal matters is not at all an indication of anti-fermentative action; for the odor of feces is not a forcible indication of the existence of putrid fermentation.

This condition is rarely encountered, and then only in cases of retention of bile. The deodorization, in fact, is wholly relative, and due simply to the fact that the aromatics, odorous in themselves, mask the odor of the feces.

The proof lies in the fact that these substances are powerless to deodorize feces that have been exposed to putrefaction, and that, moreover, this deodorization cannot be obtained by the use of the powerful non-aromatic antiseptics.

BACZKIEWICZ is said to have discovered a very notable diminution of the micro-organisms of the intestines after a course of internal antisepsis. "I confess that the results of my own researches do not accord with his. The sowing upon plates of a dilution of fecal matter obtained from four patients, both before and after a prolonged administration of a daily dose of four gme. of benzo-naphthol, yielded in each instance the same number of colonies of microbes.

"The toxicity of the urine is no certain gauge of the influence of internal antisepsis; for this toxicity is not dependent upon intestinal fermentations alone, but much more upon the waste resulting from all the cellular excretions.

"My observations and experiences, therefore, lead me to think that local or general antisepsis of the gastro-intestinal tract, by means of drugs of the aromatic series (benzo-naphthol, naphthol, salol), is impossible. I will add that these substances, far from being always broken up, may sometimes accumulate, or be eliminated without having undergone even a trace of decomposition.

"Nevertheless, in certain infectious maladies, we observe favorable results following internal antisepsis. The true explanation of these facts is not apparent; I do not know, for my part, how to interpret them; but in spite of this action, I consider that gastro-intestinal antisepsis is not the method of choice in the treatment of dyspepsia, and that the value attributed to the antiseptics actually employed is purely theoretical."

NEUROLOGY AND PSYCHIATRY

Department Editor

PEARCE BAILEY, M.D.

Collaborators

ALBERT WARREN FERRIS, M.D., LEWIS A. CONNER, M.D., THOMAS PECK PROUT, M.D., and L. PIERCE CLARK, M.D.

Cause of Romberg's Symptom.—BONNIER (*Med. Week*, III, 1895, p. 537)

In this writer's opinion Romberg's sign is invariably characteristic of a defect in, or irritation of, the ampullary apparatus of the labyrinthic, peripheral, or central nerves, and this accounts for its frequent occurrence in tabes dorsalis.

The so-called muscular sense does not, at any rate primarily, have anything to do with our perception of attitudes, including the equilibrium or changes of attitude—that is to say, our movements. When we assume an attitude which renders equilibrium impossible, the motor effort destined to correct this attitude is determined and co-ordinated by the previous perception of a change of attitude. This, consequently, precedes the sense of muscular contraction, which can only signal the effort made in obedience to the sense of attitude. It is the latter which reveals to us our loss of equilibrium, the muscular sense being only capable of revealing the effort made in the endeavor to regain the equilibrium. Perception of the loss necessarily precedes that of the endeavor, because the latter is a voluntary effort.

Hysterical Hemianopsia.—PIERRE JANET (*Archives de Neurologie*, May, 1895)

After remarking that he has heretofore considered the existence of hysterical hemianopsia to be doubtful, JANET reports a case in which a well-defined hemianopsia in each eye is clearly shown to be hysterical.

The patient, a woman aged 42, suffered for 20 years from fixed and impulsive ideas concerning cholera, and had been confined in an asylum. These ideas having been dispersed by appropriate treatment, new ones arose, being, as JANET says, "fixed and of hysterical form." These ideas, together with attacks of somnambulism, contractures, subconscious writing, and other hysterical phenomena, were finally controlled by mental treatment.

In December, 1894, after serious hemorrhages from the uterus, the patient began to notice that the image of an object persisted after the eyes were turned away from it, and was superimposed on that of the next object looked at. Then it was noticed that on looking at any object the right half of it appeared dim and gradually disappeared. In January, 1895, she complained that on looking at any object she could see only the left half of it. Perimetric examination of the left eye showed complete loss of the right half of the field with contraction of the remaining half; but in the right eye there was loss of the *left* half of the field, with very great contraction of the other half and reduction of visual acuity to $\frac{1}{10}$.

The fact that binasal hemianopsia has the effect of right homonymous hemianopsia is due to the long absence of binocular vision and the habitual suppression of images from the right eye when both eyes are open. JANET explains the hemianopsia as an effect of auto-suggestion, as follows: First, the

right eye, in harmony with the right half of the body, generally the "bad half," as the patient called it, exhibited a number of hysterical phenomena, notably contraction of the field, micropsia, macropsia, and monocular diplopia. Images from the right eye having been finally suppressed, precisely the same defects appeared in the right half of the left field, and at last images from this half of the field were no longer perceived. Up to this time had the right eye been tested alone, doubtless its field would have been found simply contracted; but the perimetric tests of the left field, showing its right half to be blind, suggested to the patient that the corresponding half of the right field would be blind also, which was sufficient to bring about the result.

As a test of the nature of the hemianopsia, it was suggested to the patient, in the hypnotic state, that she should raise her right hand as soon as she saw the doctor with a piece of paper on his forehead, and she instantly responded when he appeared thus in the blind half of the left field—a clear proof that the blindness was hysterical. Moreover, by suggestion the hemianopsia was easily and quickly converted into a simple contraction of each field as in ordinary hysteria.

Diagnostic and Prognostic Significance of the Knee-jerk in Insanity.—CRAMER (*Neur. Centralblatt*, 1895, No. 19, p. 880)

From examination of over 2000 cases, the writer states that general paralysis is the only form of insanity which presents a constant percentage of abnormalities in the patellar reflex.

Increased knee-jerk is found in a certain number of cases presenting active morbid psychical changes.

When alcoholism, exhaustion, and severe lesions of the nervous system can be excluded, absence of the reflex points to general paralysis.

Absence of knee-jerk in convalescence from mania, in chronic mania, during the course of the acute forms of the paranoia group, and in alcoholic insanity is of grave import only when accompanied with symptoms of great exhaustion.

Increase of knee-jerk is not of particular diagnostic value. It may help to differentiate mania and the acute forms of paranoia, and in chronic paranoia may herald an acute exacerbation.

In neurasthenia the knee-jerk is regularly increased. Its decrease in general paralysis is indicative of a long and depressed form of the disease. Absence of the Westphal symptom, but not its increase, after an epileptic seizure, excludes simulation.

Successful Suture of the Musculo-Spiral Nerve Three Months After Its Complete Division.—

WHARTON SINKLER (*Therap. Gaz.*, July, 1895; ref. in *Internat. Med. Mag.*, IV, 1895, p. 860)

The patient, a man aged 26, was stabbed three inches above the elbow, dividing the musculo-spiral nerve. There was complete wrist-drop. Tactile sensation was preserved over the entire hand, with the exception of an area on the posterior and inner aspect of the thumb, extending from the carpo-metacarpal articulation to the last phalangeal joint. Reaction of degeneration marked. Dr. KEEN operated three months after the accident. The bulbous portion of the nerve at the seat of injury was excised, and the extremities were stretched and sutured. After five months of persistent treatment by galvanism, signs of improvement were noted and function was gradually restored. The history of this case shows how much perseverance with galvanism can do to effect a cure.

MATERIA MEDICA

Department Editor

WILLIAM FANKHAUSER, M.D.

New Iodates

Iodic acid, sodium iodate, and all the following iodates were fully described, from a therapeutical standpoint, on pages 611 and 681 of Vol. VII, and on page 1319 of Vol. VIII, of the BULLETIN. We here append new data concerning their *physical properties*:

Atropine iodate ($17\text{H}_3\text{NO}_3 \cdot \text{HIO}_3$) occurs as colorless needles soluble in water and in alcohol. Its solutions remain free from germs for quite a length of time, so that the addition of an antiseptic is unnecessary.

Codeine iodate ($\text{C}_{18}\text{H}_{21}\text{NO}_3 + 2\text{HIO}_3$) occurs as white needles slightly soluble in water or alcohol; with age the salt decomposes, assuming a brown coloration from the liberation of iodine.

Lithium iodate ($\text{LiIO}_3 + 1.2\text{H}_2\text{O}$) is a white powder freely soluble in water.

Mercuric iodate ($\text{Hg}[\text{IO}_3]_2$) occurs as a white, amorphous powder, almost insoluble in plain water, but soluble in water containing sodium chloride or potassium iodide.

Quinine iodate ($\text{C}_{20}\text{H}_{24}\text{N}_2\text{O}_8 \cdot \text{HIO}_3$) is a white, crystalline powder, soluble in water.

Scopolamine iodate ($\text{C}_{17}\text{H}_{21}\text{NO}_4 \cdot \text{HIO}_3$) occurs as colorless crystals, soluble in water and in alcohol.

Strychnine iodate ($\text{C}_{21}\text{H}_{22}\text{N}_2\text{O}_8 \cdot \text{HIO}_3$) comes in long, colorless needles, usually conglomerated and soluble in water.

Ethyl Chloride in Hysterical Aphonia.—ALFRED KEBBELL (*Lancet*, 1896, I, p. 161)

In a note to the above-quoted journal the author states that he has found the application of ethyl chloride to the nape of the neck most efficient in the treatment of this troublesome affection. It is applied suddenly, to the extent of making a frozen patch the size of a shilling, and repeated if necessary. It is useful, because more convenient than the application of electricity. The results in the two cases given appear to confirm his opinion.

The first case was a woman of a highly emotional disposition, who sent for the doctor in consequence of being unable to speak above a whisper. As the latter was some distance from home, and had no battery with him, it occurred to him to try the application of ethyl chloride. He applied it suddenly over the middle of the neck, with immediately favorable results. She had one or two relapses, but was always at once relieved by its application. So impressed was she with its efficiency that she asked for a flask of the chloride and got a companion to apply it for her when necessary. The second case was that of a highly nervous woman, who, after a severe domestic trouble, had completely lost her voice. One application to the nape of the neck quite restored the voice, which she has not lost again up to the date of the report.

Formaldehyd Gelatin, a Surgical Disinfectant.—

C. L. SCHLEICH (*Therap. Monatsh.*, 1896, X, p. 27)

The author publishes a preliminary note regarding the use of formaldehyd gelatin in wounds. While the preparation in itself possesses no bactericidal power, during its biochemical decomposition by the living cell—which takes place when it is applied

directly to wounds—it acts as a powerful yet non-irritant molecular disinfectant, and in recent wounds in a few hours forms a firm aseptic coating. Detailed data regarding the action of the preparation have been reserved for a future paper.

Formaldehyd in Eye Disease.—JAS. M. DAVIDSON (*Brit. Med. Jour.*, 1896, No. 1829, p. 143)

Every one engaged in ophthalmic work in a manufacturing town knows how numerous and troublesome, and indeed often disastrous, are the cases of septic abrasions of the cornea ending in hypopyon ulcers. The usual antiseptic applications so often fail to benefit such injuries that recourse has to be had to the electric cautery; and if this is to be thoroughly effectual the focus must be burned out completely, and, consequently, more or less of sound corneal tissue is destroyed as well, and, while the scar left is frequently wonderfully slight, still no one can doubt that if the process can be at once arrested by local antiseptic applications the results are even better.

Dr. D. claims that in a solution of commercial formaldehyd, 1 in 2000, or 1 in 3000, we have such a substance. This acts admirably in abrasions of the cornea which have become septic and infiltrated, and might or might not go on to suppuration. Another great advantage is that the severe pain so characteristic of hypopyon ulcer is speedily relieved by the solution, which, further, is non-poisonous, and produces no irritation in the strength recommended. The directions Dr. D. gives to the patient are to lie down, and then with a dropper, or, failing that, a teaspoon, the solution is poured gradually into his eye, while the eyelids are kept winking, so that its surface will be freely bathed; this being done hourly during the day, and at night also, should the patient happen to awake.

The author states that since using formaldehyd in this way he has not had to use the electric cautery a single time. He admits, however, that there are cases in broken-down patients, and those that are too late in seeking advice, where suppuration of the cornea cannot be arrested by any means known.

Intermittent Fever and Its Treatment.—KLEIN (*Ther. Gaz.*, XIX, p. 748)

In intermittent fever, the chill which generally ushers in the fever is variable in length and intensity with the gravity of the case, although in general no cases are grave. During the chill therapeutic measures are of little value. Often this period is accompanied by persistent and painful vomiting, and violent gastralgia, and lancinating pains in the epigastrium. The vomiting may generally be stopped by painting the epigastric region with tincture of iodine, or by the application of a mustard plaster. If these methods fail, the author administers cocaine in the following formula:

Cocaine Hydrochlorate	2 grn.
Distilled Water	2 fl. oz.
Syrup	5 fl. dr.
Orange-flower Water	5 fl. dr.
Teaspoonful every two minutes.	

The vomiting, it is said, usually ceases after the ingestion of four to six doses. This quantity should not be exceeded, and with children the mixture should be used with great caution.

For the intense gastralgia the author uses the above, discarding opium on account of its tendency to render the constipation more intractable, or he applies a mustard plaster over the epigastrium for five minutes, and then chloroform liniment under a

flannel; in addition he prescribes chloroform water in teaspoonful doses.

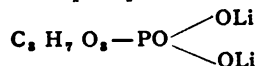
The period of fever follows with elevated temperature, dry skin, rapid, full pulse, great thirst, and severe headache. Soda-water may be given in small doses for the thirst, and the patient should be purged. The author prefers castor-oil to other purgatives. He administers the oil either in flexible capsules or in an emulsion made by putting 4 to 5 fl. dr. of the oil into a glass of hot milk, and stirring. The emulsion may be disguised with an aromatic essence. If the temperature is not above 102° F., and the headache is not violent, expectant treatment is all that is required. If, however, it is higher, sudorifics are needed; in the author's opinion, the best are sodium salicylate and antipyrine. If the condition of the kidneys does not preclude the use of the sodium salt, it may be used in the following manner:

Sodium Salicylate	30 grn.
Antipyrine	30 grn.
Syrup	1 fl. oz.
Orange-flower Water	5 fl. dr.
Distilled Water	3 fl. oz.
Tablespoonful every hour.	

The sudorific stage requires no therapeutic measures.

Lithium and Magnesium Glycerinophosphates.—(*Bericht über das Jahr*, 1895, p. 2)

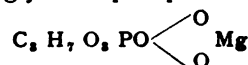
Lithium glycerinophosphate



occurs as a white, crystalline powder, readily soluble in water; it appears on the market also in 50-per-cent. solution.

Lithium glycerinophosphate is employed in cases where lithium, as well as glycerinophosphoric acid (a nerve tonic), is indicated. The dose is 0.5 to 1 gme. (7½ to 15 grn.) several times a day, in carbonated water.

Magnesium glycerinophosphate



is a white powder, very readily soluble in water.—(Glycerinophosphoric acid and the glycerinophosphates of calcium, iron, potassium, and sodium have been fully described in these columns.)

Phenylquinaldine Hydrochlorate, an Antiperiodic.

—Professor CELLI (*Münch. med. Wochenschr.*, 1896, XLIII, p. 3)

Phenylquinaldine, $\text{C}^9\text{H}^6(\text{C}^6\text{H}^5)\text{N}$, results from the action of hydrochloric acid upon aniline mixed with acetophenone and paraldehyd, as well as by the condensation of benzoylacetone with aniline. Its hydrochlorate occurs in colorless crystals of a pungent, peppery taste, and readily soluble in water. Applied topically in concentrated solutions, it acts as an irritant.

Professor C. has employed phenylquinaldine hydrochlorate in 12 cases of malaria, in the tentative dose of 0.1 to 0.2 gme. (1½ to 3 grn.), given in wafers. However VON ZIEMSEN has found that much larger doses —0.6 to 0.8 gme. (9 to 12 grn.)—are usually borne well, occasioning no disturbance; nausea and vomiting were but rarely observed.

As far as the reports go, phenylquinaldine hydrochlorate seems to be possessed of some antiperiodic power; but how it compares in this respect with the well-known remedies yet remains to be determined by further clinical observation.

SURGERY

OPHTHALMOLOGY, OTOTOLOGY, RHINOLOGY,
LARYNGOLOGY, DERMATOLOGY, ORTHO-
PEDIC AND GENITO-URINARY SURGERY

Department Editor

SAMUEL LLOYD, M.D.

GENERAL

In charge of B. FARQUHAR CURTIS, M.D., WILLIAM B. COLEY, M.D., E. M. FOOTE, M.D.

Prolapse of Rectum Caused by Stone in the Bladder.—IDZINSKI (*Wien med. Presse*, 1895, p. 1782)

The patient, a boy 5 years old, had suffered from prolapse for a year, having constant tenesmus, both rectal and vesical. The stools were fluid, and the urine came in drops. There was no history of a dysentery, which the author believed to be the original cause. The child was admitted to the hospital for operation, IDZINSKI expecting to operate on the prolapse, which was an extreme one, by the Hutchinson method, intending to perform a laparotomy for this purpose.

On examination under chloroform, it was noted that the child pulled at the penis as an attack of tenesmus came on; the organ was elongated, the prepuce retracted, dry, and thickened. This drew attention to the condition of the bladder. A soft catheter drew off clear urine, and no metal searcher suitable for a child being at hand, a bimanual examination of the bladder was made, two fingers being inserted in the rectum. By this means a small stone could be felt in the bladder. The author then determined upon a suprapubic cystotomy before proceeding to the operation upon the rectum. The prolapse was reduced and cotton tampons placed in the rectum, which, even under narcosis, were immediately expelled. These were replaced and held by an assistant, and a suprapubic cystotomy made and the stone removed. After its removal there was no further attempt on the part of the rectum to expel its contents. The bladder wound was closed, the external wound, closed at its upper part, was drained at its lower extremity by a gauze tampon, and a catheter, with a siphon attachment leading to a vessel containing boric solution, was tied in the bladder. All rectal tenesmus ceased after the operation, though on removal of the cotton tampon from the rectum on the following day, there was prolapse, which was replaced and did not again recur; and with removal of the stone there was complete recovery. The stone was small, irregular, and rough.

Gangrene of the Cheek after Typhoid Fever Associated with Facial Neuritis.—AUSSET AND BOULOGNE (*Le Bulletin méd.*, 1895, p. 1011)

A woman 21 years of age was admitted to hospital with a typhoid fever of some days' duration, and after being cared for for a month was removed by her family, but a week later returned with a gangrenous patch on the left cheek involving the upper lip and the ala of the nose. The process extended to the middle line, involved the gum and the lower eyelid, and finally the entire left side of the mouth. A gangrenous patch also appeared on each foot. The right cheek became erysipelatous before death ensued. An autopsy was not obtained, but portions of the left facial and of the right anterior tibial nerves were removed and cultures were made. Those from the tibial nerve

showed only the ordinary germs of putrefaction, but those from the facial also developed the typhoid bacillus, and inoculation from the latter caused characteristic lesions in a rat. Microscopic examination revealed a few typhoid bacilli in the facial nerve, with signs of degeneration, but the tibial was healthy. Without elaborating any theory for all cases, the authors think that in this case a neuritis preceded and was the cause of the gangrene.

Five Years without Recurrence after Pylorotomy for Carcinoma.—PORGES (*Wien. klin. Wöch.*, 1895, No. 43)

PORGES showed at the meeting of the K. K. Gesellschaft der Aerzte, in Vienna, on October 18, 1895, a patient upon whom MAYDL had performed a resection of the pylorus with removal of the greater part of the stomach for a scirrhus of that organ, in August, 1890. The patient was now 62 years old, and had gained 25 kgr. in weight since the operation. The diagnosis was confirmed by the microscope. In the discussion VON HACKER alluded to a case of BILLROTH'S, operated upon in April, 1890, for "glandular carcinoma" (microscopic examination) of the stomach, and perfectly well in May, 1895. No other case is known to have remained free from the disease so long as these two.

Splenopexis for Wandering Spleen.—KOUWER (*Wien. klin. Wöch.*, 1895, p. 752)

KOUWER reports two cases of wandering spleen for which he attempted fixation by a method different from that employed lately by RYDYGIER. Both cases were operated upon four years ago. An oblique lumbar incision was made below and outside of the kidney, the spleen pressed into the wound by an assistant, and, an attempt at suture having been given up on account of the hemorrhage it caused, the wound was packed with gauze down to the organ where it lay exposed by an incision in the peritoneum. In the first case the tampon was kept in for about a month, the wound healing by granulation. This patient still remains well. In the second case there were symptoms of intestinal obstruction which compelled the entire removal of the tampon within six days, and this patient had an early relapse. KOUWER acknowledges that the spleen is secured in an unnatural position by this operation, but claims that the essential thing is to secure the organ in some fixed position where it can do no harm, the situation being less important than the fixation.

GENITO-URINARY

In charge of GEORGE KNOWLES SWINBURNE, M.D.

Biology of the Gonococcus.—FINGER, GHOU, and SCHLAGENHAUFER (*Archiv. f. Derm. und Syph.*, 1895, p. 141)

Another important and extremely interesting study of the gonococcus and the part it plays in pathological processes in different organs of the body comes from FINGER and his assistants. This is mainly a complete study of a case of gonorrheal urethritis, prostatitis, arthritis and endocarditis. The article begins with a *résumé* of the published cases of endocarditis occurring in the course of a gonorrhea, some ending in recovery and others in death from the heart trouble primarily and secondarily, and the conclusions drawn by the authors. Some of these cases were of mixed infection, but latterly several cases have been published, which,

though they are not conclusive, still point to the extreme probability of a malignant endocarditis of purely gonorrheal origin.

FINGER's case is that of a young man, 19 years old, of fair build and fairly nourished, who had had repeated attacks of gonorrhea, who, in March, 1895, acquired a fresh attack, took no care of himself, and apparently abstained neither from alcoholics nor coitus. In April he entered the hospital, having pain and swelling in one knee and high fever, result of exposure to cold. On entrance the lungs, heart, liver, spleen, were practically negative, T 40.2 C. The urethral discharge was thick and purulent and contained typical gonococci.

The temperature continued high and several days after entrance abnormal heart sounds were noted, and patient complained of chilly feelings; the knee-joint continued the same, but the urethral discharge had completely abated under treatment. After this there were repeated chills, rapid loss of strength, increase in heart symptoms, cyanosis, edema of lungs, collapse and death within a few days.

A complete microscopical and bacteriological study of all the organs was made, but interest chiefly centers in the conditions found in the heart and knee-joint. The left heart in and about the aortic opening showed ulcerative endo- and myocarditis, and vegetations on the valves. The right knee-joint contained a seropurulent fluid, and a swollen and injected synovial membrane.

Briefly, stained, cover glass preparations from the diseased portion of endocardium showed typical gonococci, and no other micro-organisms; those from the knee-joint showed no micro-organisms.

Cultures made from all the organs upon pepton-agar and ox-serum as a culture medium all remained sterile except some from the urethra which showed some micro-organisms not recognized. The authors believe there is good reason for the sterile condition of the cultures, and believe it to be complete proof that at least none of the other pus-producing organisms took part in the process.

Stained microscopical sections of the diseased organs were made and their appearances minutely described, and from these studies certain important conclusions are drawn: That although cultures of the gonococcus could not be made, as has happened with others, yet there are certain microscopical appearances of the tissues involved which are noted as occurring only with gonococcus invasions, and not with any other known micro-organism.

1. The characteristic form.
2. The well-known color tests, decolorization according to GRAM or WEIGERT; the rapid change caused by aniline, oil, or alcohol; rapid decolorization by alcohol.
3. And especially the behavior in the tissues themselves.

(a) Where the gonococcus comes in contact with polynuclear leucocytes, it penetrates the cell body and multiplies in it. This has long been recognized, but no less characteristic is

(b) That where the gonococcus has opportunity to settle in large spaces, containing few leucocytes, and the walls of these spaces offer no hindrance to their spread and growth, then the gonococci form by their growth little heaps and ball-like formations, which, under the microscope, have been recognized as characteristic of the gonococcus in pure culture. Especially, the presence of numerous involution forms, which take color badly, in addition to the characteristic coffee bean diplococci and sarcini, are regarded as characteristic of the gonococcus, although involution forms are sometimes found with staphylococci.

(c) Finally, where there exist fine canals, the manner in which the gonococci penetrate these is characteristic, pair behind pair,—not, however, in chains; and when a canal widens, the series is broken, and several pairs appear, or the sarcini form appears. These characteristics have been recognized in studies made on the urethra where gonorrheal inflammation was present; they were also found in the endocarditis and in the vegetations.

The authors thus prove that the gonococcus *per se* is to be regarded as capable of setting up a septic and pyemic process capable of producing death.

ORTHOPEDIC

In charge of T. HALSTED MYERS, M.D.

Osteotomy for Genu Valgum. — GRAVES (*Med. News*, No. 1184, p. 317)

The author objects to the Macewen operation, because it has to be performed in the neighborhood of the internal saphenous vein and nerve, the anastomotic magna artery, and the internal upward prolongation of the synovial membrane lining the knee-joint.

He prefers the MacCormac operation, in which the bone is divided 2 inches above the lower femoral epiphysis on the outer side of the limb. The peroneal nerve, lying close to the biceps tendon, is the only structure to be avoided, except of course, the popliteal artery. The chief advantage in this operation is that it permits of partial external bone-section with a maintenance of internal osseous continuity—a green-stick fracture, therefore, which is, of course, impossible in Macewen's operation.

Treatment of Pathological Dislocations of the Hip.—CALOT (*Ann. d'Orthop.*, VIII, No. 11, p. 341)

C. recommends opening the joint by an incision between the gluteus medius and tensor vag. femoris, deeply scraping out the old acetabulum, and replacing in it the head of the femur. Fixation is secured by a plaster-of-paris spica. In 50 days the child can walk without braces and without crutches—an immense advantage; besides, some motion is preserved. The limp, though great before operation, disappears after some months. The attitude is perfect, and the shortening which in his cases had never exceeded 3 ctm., can be corrected by a high shoe. The operation cannot be done while the disease exists, and in tubercular cases a focus may persist for a long time ready to start up afresh. But if a patient has been walking about freely for eighteen or twenty-four months without any clinical manifestation of disease CALOT believes the operation may be done. A second objection is that when the head is atrophied or entirely absent the dislocation is very apt to recur. This condition can be diagnosed before operation. Where resection is contra-indicated, forcible redressment is the best procedure. This corrects the deformity and brings the great trochanter to NELATON's line, but limited motion often results, and treatment for more than a year afterwards is required.

British Orthopedic Society

At a recent meeting of this society at the National Orthopedic Hospital, the following papers were read and cases shown: NOBLE SMITH, "Laminectomy for Compression Paraplegia following Pott's Disease of the Spine"; ROBT. JONES, "Chronic Hypertrophy of the Fingers"; Mr. NEWBOLT, "Genu-recurva-

tum"; Mr. JACKSON CLARKE, "Spina Bifida Occulta," "Double Congenital Dislocation of Hip," and "Congenital Equino-Varus"; N. GRATTAN demonstrated the use of his osteoclast; Mr. TUBBY, "Observations on the Union of Tendons and their Practical Bearing," and "Treatment of Abscess in Pott's Disease."

EYE AND EAR

In charge of WILLIAM OLIVER MOORE, M.D.

The Electrical Treatment of Tinnitus Aurium.—

JONES (*Archiv. of Otol.*, XXIV, p. 293)

J. says that in normal individuals a current of five milliamperes or more is needed to excite the first sensation of sound with the cathodal closure, while in some cases of tinnitus one milliampere may be sufficient. Inasmuch as tinnitus aurium is often associated with an increased state of irritability in the auditory canal, it follows that a steady battery current, with the anode to the ears, may arrest it, and many brilliant cures of the symptom have been effected in this way.

The auditory nerve can be acted upon best by a bifurcated electrode, which can be applied to both ears at once. At a pinch a binaural stethoscope answers very well, small metal disks being substituted for the ivory ear-pieces. A pad of moist, absorbent cotton should be placed between the electrode and the skin. The indifferent electrode is placed at the back of the neck, where it is kept in position by the clothing; and a galvanometer and a rheostat should be included in the circuit, which enables the operator to introduce or remove quite gradually a resistance of 10,000 ohms. When everything is ready, the current is slowly and steadily raised by the current collector to five milliamperes (the rheostat being at zero). As the resistance of the skin diminishes, the current will increase slowly, the galvanometer may be allowed to indicate eight or ten milliamperes, each ear receiving half the current. It should not be allowed stronger; the patient should notice any changes in the noises and tell of them. The effect of the application of the anode to the ears should be to diminish the noises; that of the cathode, to increase them. The reverse sometimes happens, however, and therefore the patient must be tested to find out whether the current modifies the sounds. This is to be done by closing, interrupting, and reversing the current, while the patient attends to and reports the effects produced upon the tinnitus. If diminution of the sounds be produced the prospects of improvement are good, and the patient encouraged. If neither the anode nor cathode alter the sounds, the prognosis is unfavorable and treatment useless. If it happens that the tinnitus is dispelled by the treatment, at first the relief is quite temporary, and the noises will probably return within an hour; but after each sitting the period of quiet is longer, until finally they disappear altogether. Treatment daily for the first week, then twice weekly for three weeks will usually suffice.

What is the Cause of the Shadow in Skiascopy?—

WEILAND (*Med. News*, No. 1187)

The writer asks this question, and, after quoting what various writers have said on the subject, gives his reasons, and figures several diagrams demonstrating his position, and concludes as follows: "My communication will have fulfilled its purpose if it has attracted attention to some important points usually overlooked, or even entirely misunderstood, not only

by the practicing skiascopist, but also by the authoritative writers.

"1. The observer must keep his eyes accommodated for the pupil of the patient.

"2. The light area has then exactly the shape of the patient's pupil, round or otherwise, as the case may be, and remains perfectly stationary throughout the test. The shadow alone moves.

"3. The shadow is produced by the iris of the observer.

"4. The usual crescentic shape of the shadow has its cause in the usual circular form of the pupil of both patient and observer.

"5. Skiascopy is the more accurate the larger the pupil of the patient (provided there is not much aberration in the peripheral zone) and the smaller the pupil of the observer."

Pulsatory Tinnitus.—DALLY (*British Med. Jour.*, No. 1820)

The author, at the British Medical Association, reports the case of a female aged 15 years, in whom a loud, grating sound in the left tympanic cavity could be heard by the bystanders. The sound was like the loud tick of a watch; and was synchronous with the pulse for several beats then, stopped for an interval, and was then resumed. No position or movement of the body seemed to modify them. The ears were healthy.

Cerebral Complications in Relation to Middle-ear Disease.—MACEWEN (*British Med. Jour.*, No. 1820)

M., in speaking of the ease in which the pyogenic organisms will invade the intracranial cavity from the tympanic, says it reminds one of the words which Shakespeare puts into the mouth of Richard II.:

"For within the hollow crown
That rounds the mortal temples of a king,
Keeps Death his court; and there the antic sits;
And, humored thus,
Comes at the last, and with a little pin
Bores through his castle-wall, and farewell, King!"

DERMATOLOGY

In charge of HENRY W. STELWAGON, M.D.

Diet in the Etiology and Treatment of Diseases of the Skin.—WALTER G. SMITH (*Brit. Jour. Dermat.*, 1895, VII, p. 309)

The author suggests that the practice of physicians is not based upon sound knowledge in regard to the subject of diet in relation to skin diseases. The author considers that the influence of diet in the causation of skin diseases is a small one, and that substantial knowledge of the subject is limited. Diet may influence the skin by influencing the general nutrition; by acting as a reflex stimulus from the gastro-intestinal tract; by absorbing into the blood irritating substances or products of chemical change which indirectly affect the skin; or the skin may suffer by affording one of the avenues of elimination. The author concludes that the best advice to give patients who are suffering from diseases of the skin is that they are moderate in regard to eating and drinking, and especially that they are careful in regard to alcohol. They are also to observe carefully if there are any special articles of food which do not agree with them. The author gives the following rules:

1. Very few skin diseases are directly traceable to dietetic causes, but improper diet may aggravate

existing eruptions. Idiosyncrasy must be largely allowed for.

2. The diseases that may so arise are of a transitory character, and mostly belong to the class of erythemata.

3. Diet has very little influence in promoting the cure of cutaneous eruptions. The results are far behind popular expectations, even in such cases as acne rosacea, where we are led to hope for much.

4. Avoidance of alcohol, regulation of the bowels, and the cure of anemia are of infinitely greater importance than special dieting in the management of diseases of the skin.

Sero-therapy in Syphilis.—HÉRICOURT and CH. RICHET (*Bull. méd.*, 1895, IX, p. 342)

At the meeting of the Biological Society, Paris, April 6, 1895, HÉRICOURT and RICHET reported that they had treated by injections of serum a case of tertiary syphilis with ulcerating gummata of the leg. The serum employed was taken from an ass who had received 20 ctm. of blood from a patient who had syphilis in the secondary stage. The blood injection antedated the serum injection by 54 days. In three and one half months there had been no improvement in the patient in spite of general and local mercurial treatment. In 18 days 13 injections were made. Cure was complete in four weeks.

OBSTETRICS; GYNECOLOGY; PEDIATRICS

Department Editor

THOMAS S. SOUTHWORTH, M.D.

Collaborators

GEORGE G. WARD Jr., M.D., GEORGE R. WHITE, M.D.,
EDWARD N. LIELL, M.D., WILLIAM B. NOYES, M.D.

Trachoma of the Female Genital Tract; Hydrocele of the Labia Majora.—WM. A. EDWARDS (*South Calif. Pract.*, Vol. X, No. 12, p. 447)

The writer describes faithfully the above comparatively rare diseases.

The first disease is not described at all in either old or new text-books on gynecology, and it was not until the paper of JOHNSTONE, read at the last meeting of the Amer. Gyn. Soc., that this disease received a proper classification in our nomenclature.

This condition is one of obliterative inflammation of the genital tract—a form of vulvitis often grouped under pruritus vulvæ.

The disease cannot be traced to any venereal or microbial influence. It may occur in young or old, virgins or multiparæ. The eight cases which have come under the author's observations have presented themselves only in a chronic form, and of three varieties, papillary, follicular, and mixed trachoma. No acute case has made itself evident. No satisfactory etiology of the disease is offered. Six of the cases referred to were in women of advanced years, a seventh in one of middle life. Bearing upon the etiology, one case developed immediately subsequent to a pan-hysterectomy, while two gave a distinct history of antecedent cystitis.

The clinical manifestations of the disease are very similar to those of trachomatous inflammation of the eyelid. Beginning in the region of the clitoris, it extends downward over the entire vulva, and is apt to involve the urethra and vagina. In its early stage the parts present a peculiar and characteristic appearance not unlike the sub-mucous or sub-cutane-

ous hemorrhage of purpura rheumatica. After the disease has existed for a time the parts become fissured, and the thin, ichorous discharge usually present is somewhat diagnostic.

Later, when diffuse scar tissue results, it is called trachoma deformans. In some cases the normal contour of the vulva is obliterated, the labia minora first adhering to the larger labia and then become obliterated by scar tissue, the vaginal outlet thus becoming much contracted. These cases do very poorly even under treatment.

That recommended is to keep the parts well cleansed with either a 5-per-cent. pyrozone, boric acid saturated, or a 20-per-cent. salicylic acid solution; the parts may then be dusted over with compound stearate of zinc. As recommended by JOHNSTONE, an ointment of yellow oxide of mercury, 4 to 10 grn. to the ounce, may be used twice a day as well.

In hydrocele of the labium majus, there occurs a prolongation of peritoneum below the mons veneris, through the inguinal ring and covering the round ligament; this peritoneal investment may become adherent about the ring and a transudation of serum occur into the cavity thus formed. The labium thus presents a fluctuating, egg-shaped tumor, more or less firm. It is met with as a comparatively rare condition, the writer having seen but one case. Several varieties are described. The treatment is surgical, similar in all respects to that for hernia.

Seven Cases of Laparotomy for Intussusception in very Young Children.—C. B. CLUBBE (*Australasian Med. Gazette*, XIV, No. 9, 1895)

These seven cases of intussusception all occurred in infants under five years of age. Of these, four recovered, three died.

CASE I.—Child, aged six months, had been vomiting, and had passed nothing but blood and slime from the bowels for a day. It was somewhat collapsed. There was an elongated tumor on left side of abdomen, and a mass felt by rectum.

Injection of warm oil failing to reduce the mass, laparotomy was performed. The tumor was found at splenic flexure of colon, and contained the cecum, ascending and part of transverse colon. It was reduced and followed by complete recovery.

CASE II.—Child, four months old, suddenly turned white, drew up its legs, screamed and afterwards vomited, passed blood and slime from the bowels, which continued all day.

No distention of the abdomen or pain on deep palpation was found. Laparotomy was performed. The cecum was found invaginating the colon about three inches, and reduced without difficulty. The child died.

CASE III.—An infant six months old was taken suddenly ill with vomiting, passing of blood and straining. It did not look very ill. There was slight distention of the abdomen and no tumor which could be felt.

An oil enema failed to relieve, and was followed by blood and slime. Laparotomy was performed. An intussusception was found on the right side caused by the cecum turned into the ascending colon. Reduced without difficulty. The child recovered.

CASE IV.—A child four months old had cried with pain three days before admission. Soon afterward it began to pass blood, and vomited constantly. No definite tumor was felt by abdominal palpation, but a mass was felt by rectum. On opening the abdomen, the cecum, the ascending and descending colon were found in the rectum, and were reduced with difficulty. The cecum was very much

congested and hard, and there was much gas. The child died from shock.

CASE V.—A child aged four months, who had started with diarrhea, and became restless, crying from pain. Oil by mouth and an injection were given, resulting in a stool streaked with blood.

Resistance was felt in the left iliac fossa and a mass by rectum. A definite sausage-shaped tumor was felt under anesthesia on the left side of the abdomen.

A high oil injection partially reduced this.

On opening the abdomen the tumor was found in the transverse colon, and was reduced with difficulty.

Cecum, dark and hard.

Slow convalescence; recovery.

CASE VI.—Child, aged five months. History of diarrhea, vomiting, bloody and slimy stools like dysentery. A sausage-shaped tumor was felt on the right side of the abdomen which an oil enema did not reduce. On opening the abdomen, the tumor was found on the right side, and reduced. The appendix, having been injured, was removed. The recovery was satisfactory.

CASE VII.—An infant aged four months had a sudden attack of pain, passing blood and mucus from the bowels. An elongated tumor was felt on the left side of the abdomen and by rectum. Laparotomy was performed.

The colon from ileo-cecal valve was found to be intussuscepted, and was easily reduced. The child collapsed, but recovered. It died four days later.

Of 73 cases of intussusception reported in the *Lancet*, 1888, 60 died, 13 recovered; 23 were children, of whom five recovered. There are records of 11 other recoveries from laparotomy for intussusception among children.

These statistics of recoveries indicate that very young children can bear the shock of an abdominal section, if attempted early enough, before the resisting power has been used up by repeated fruitless efforts to force back the bowel by enemata of oil or water.

Delivery by Forceps in the Königl. Frauenklinik of Dresden.—Dr. WAHL (*Arch. f. Gyn.*, L, No. 2, p. 235)

The statistics of forceps operations done during the five years from 1889 to 1894 are as follows:

Among 9061 deliveries the forceps was applied 232 times, or in about 2.56 per cent. of the cases. In 29.3 per cent. of the cases the operation was done in the interest of the mother; in 65.9 per cent. in the interest of the child; and in 5.5 per cent. for both mother and child. Eighty-one per cent. of the mothers were more or less injured by the operation, and 18.9 per cent. developed a high fever. The total mortality was 5.17 per cent. for the mothers, and 21.2 per cent. for the children; but in no case was the death of the mother directly due to the operation, and only 5.6 per cent. of the children died from that cause.

These statistics do not differ essentially from those of other clinics, and correspond closely with those of SCHMIDT, of Basil.

The Course of Pregnancy, Labor, and the Puerperium in Young Primiparæ.—SPITTA, of Marburg (*Centralbl. für Gyn.*, 1895, No. 51, p. 1345)

From 260 cases of pregnancy in very young women treated in the clinic at Marburg during the past 18 years, the author draws the following conclusions:

Gestation is usually not associated with more annoying symptoms than in older women. Labor usually

takes place before the end of 40 weeks, and is apt to be long and tedious, partly on account of weakness of the labor pains, and partly owing to the small size of the undeveloped pelvis. Dystocia, due to the bony pelvis, is much more uncommon than obstruction from the soft parts, which latter are apt to be more or less lacerated during the labor. Post-partum hemorrhage fever and sore breasts are of frequent occurrence. Forceps are indicated oftener than in older primiparæ.

The mortality for both mother and child seems to be but little increased.

The Indications for Operation in Puerperal Sepsis.

—LEWIS S. MCMURTRY (*Intern. Jour. of Surg.*, 1896, No. 1, p. 7)

Puerperal sepsis may, for practical purposes, be divided into two general classes:

1. Wherein systemic infection is marked and predominant, with comparatively trivial local manifestations. 2. Wherein the local inflammatory lesions are marked and systemic infection is secondary.

It is in the latter class of cases, where lesions, demonstrable to the skilled touch, and local signs of recognized value, together with general symptoms of known significance, are present, that the basis for operative interference is formed. The time for operative interference and the extent to which the surgical procedure should be carried in these cases require the exercise of sound surgical judgment.

Systematic Treatment of Chorea.—J. MADISON TAYLOR (*Phila. Polyclin.*, V, No. 2, p. 11)

It is probable that each case of chorea has more than one factor in its causation. Chorea is a motor excitability producing exhaustion. It usually ends in recovery, with occasional relapses, which are sometimes permanent. If rheumatism is a feature as in one-third of the cases, it is more serious, because a heart lesion may suddenly develop and be permanent. The following therapeutic measures are suggested:

1. Specific medication—arsenic—with anti-rheumatic or anti-malarial drugs. 2. Rest to the body, and care to obtain proper sleep. 3. Nutritional repair—to counteract the depreciation and devitalization of the tissues, caused by their exaggerated overaction. 4. Re-education of co-ordination—a very important but little noticed item.

Put the child to bed, warmly clad, with plain food and no red meat, and an abundance of milk, fruit, and vegetables.

Bathe twice daily in tepid water, with spinal douches, followed by brisk rubbing and massage. Give a laxative every second or third day for the first week to get rid of intestinal irritation or fecal toxins.

For the anemia give cod-liver oil, preferably in capsules, rather than iron.

To restore co-ordination, re-educate the limbs by gymnastics and systematic posings (so-called Delsarte exercises), but always insist on rest after the exercises.

For rheumatic pains, use salicylates, preferably ammonium salicylates, combined with ammonium bromide in liquor ammonii acetatis or elixir calisaya.

Fowler's solution of arsenic gradually increased from 3 drops thrice daily by the addition of 1 drop a day until toxic symptoms are produced, is the most satisfactory general method of treatment.

Quinine is sometimes of service. If habit chorea develops, moral suasion, hypnotism, or suggestion or mild fright are useful. Reasoning with a child may be efficacious.

SOCIETY MEETINGS

NEW YORK ACADEMY OF MEDICINE

SECTION ON GENITO-URINARY SURGERY

February 11, 1896

W. K. OTIS, M.D., Chairman

Vesical Calculus Without Symptoms.—Dr. J. R. HAYDEN: I desire to present a calculus weighing 360 grn. which I removed by suprapubic cystotomy. My object in presenting it is to call attention to the fact that the man carried it for about a year without exhibiting the classical symptoms of stone. The only symptom he had was occasional vague pain in the bladder. At either extremity the stone tapers to a fine point, as if it had been held in the ureteral openings or the bladder walls.

Dr. L. BOLTON BANGS: Sometimes a stone remains in the bladder for a long time without giving rise to symptoms. I operated recently upon a man, 67 years of age, who had slight symptoms of stone for five years—slight pain on being jolted. He had no cystitis until he was infected by some one who endeavored to employ local treatment in the bladder.

Dr. J. F. ERDMANN: A week ago yesterday I operated upon a man who had two stones in a sacculated bladder. He had had no symptoms of stone until just before then, when he had become infected, and had developed a severe cystitis.

The Chairman, Dr. OTIS: It appears to me that the most extraordinary things in regard to the stone just exhibited are the two points which seem as if they must have been formed in the mouths of the ureters; and yet this seems hardly credible, as the patient gave no symptoms that indicated any interference with the ureters.

Double Tubercular Epididymitis.—Dr. IRWIN H. HANCE: I desire to present a case of double tubercular epididymitis. This young gentleman is married, and has had no venereal disease. One year and a half ago he suffered from severe neuralgia of the stomach, and about this time the micturition was noticed to be more frequent than formerly. This persisted for about one year. Four weeks ago he had slight pain about the bladder, followed by dull pain in the right testicle, which was also swollen and tender. One week later, the left testicle became swollen. On January 20 I first saw the patient. He then had double epididymitis, and there was some hydrocele. The inguinal glands were slightly enlarged. The urine was 1027, and showed no albumin on applying heat and nitric-acid tests. On standing, there was a considerable deposit of flocculent mucus—not the deposit of mucus and pus found often in cases of this kind. A few typical tubercle bacilli were found in the urine. Dr. L. B. BANGS also found tubercle bacilli in this case. The tubercular epididymitis was apparently secondary to tuberculosis of the prostate or seminal vesicles. I present the case because it seems to me decidedly unusual to find so few symptoms in a tubercular case of this kind, and because it was possible to find the tubercle bacilli in the urine when there was such a very small sediment present. During my stay in the Adirondacks I have observed with interest the effect of climate upon the disease. In one severe case which I recall, sent by Dr. F. TILDEN BROWN, there was an occasional exacerbation of the disease lasting for a few days at a time, and corresponding exactly with similar aggravations seen in pulmonary

tuberculosis. This man was much improved while in the mountains, and enjoyed a fair degree of health during his residence of 18 months; yet within two or three weeks after leaving the mountains and reaching the sea-shore, his general health broke down completely, and he died within two or three months. If there is any fluid that can be drawn from the epididymis or tunica vaginalis, this should be injected into a guinea-pig in order to establish the diagnosis, provided no tubercle bacilli are to be found in the urine. I should hesitate to operate upon these cases unless there was evident breaking-down of the tissue.

Dr. C. L. GIBSON: I should like to ask for further information regarding the bad effect of sea air, as alluded to by the speaker. I should like to know whether it is wise to recommend a long sea voyage to persons having a small tuberculous deposit in the lungs or elsewhere.

Dr. L. BOLTON BANGS: Regarding the operative treatment of these cases I would say that my practice in recent years has not been to castrate unless there was very severe pain, or unless there is some suppurative focus that cannot be entirely removed by a more conservative operation. Last spring, when I presented to the Surgical Society a group of tubercular bladder cases, I heard about the same statement made Dr. A. G. GERSTER. I have seen the simple surgical traumatism of castration precipitate an acute tubercular process. Regarding the effect of climate, I am in doubt, and I often have to depend somewhat upon the past experience of the individual in this respect. Most of these patients are benefited by a dry atmosphere in an elevated region.

The Chairman, Dr. OTIS: Many of my own cases that have gone to the seaside have done very badly.

Dr. HANCE: I have found that cases of pulmonary tuberculosis have not been generally benefited by a long sea voyage. The question of sea-sickness is a serious one, and one should not forget that if a patient becomes mentally depressed while at sea there is no means of changing his surroundings.

Enlarged Prostate; Castration.—Dr. C. B. KELSEY: The specimen I wish to present was removed from a man who had presented the usual symptoms of enlarged prostate. He was admitted to the Post-graduate Hospital on December 2, 1895, and he died on January 14, 1896. A day or two after his admission I castrated him. I should not have undertaken this very radical operation had it not been that he had a very large scrotal hernia and a hydrocele on one side, and as I intended to operate on these also, I thought it justifiable to perform castration. This latter operation gave him absolutely no relief. On December 28, owing to the severity of his bladder symptoms I did a perineal section. He died in coma, seventeen days later, with the usual symptoms of chronic parenchymatous nephritis. I do not think that his death could be attributed to either of the surgical operations. The specimen is of interest because it shows that six weeks after the operation of castration there is no evidence of atrophy of the prostate. The prostate has been submitted to very careful microscopical examination. The lobes of the prostate weighed 45 gme., and the report from the microscopist showed that there were absolutely no atrophic changes.

Dr. E. FULLER: I have watched this patient very carefully, both before and after the castration, and certainly palpation gave no evidence of atrophy of the prostate. So far as I know, the only other case which has been examined after death was one by GRIFFITHS, of England, who found an amazing amount

of atrophy, not only of the interstitial tissue and muscle, but of the glandular elements. His examination was made only three weeks after the castration.

Dr. THOMAS H. MANLEY: It does not seem to me that the effect of castration could be fairly tested in this case, owing to the fact that the operation was performed at the same time on a hernia and a hydrocele. I should like to know if there were an enlarged third lobe, and also if a microscopical examination showed that the enlargement was due to inflammatory infiltration, or whether the prostate had undergone hypertrophic fibrous induration.

Dr. KELSEY: As far as the microscopical report goes, it shows a purely hypertrophic, and not a fibrous, enlargement of the prostate. There was no distinct enlargement of the third lobe.

Nephrectomy Secondary to Nephrotomy.—**Dr. E. FULLER:** An interesting feature in the case I am about to report is that for years the patient had been supposed to be suffering from prostatic hypertrophy, when in reality all his symptoms had been occasioned by a right-sided calculus pyelitis. His symptoms certainly closely simulated those often caused by prostatic hypertrophy. **ISRAEL** has shown that the mortality is less when nephrotomy is done first, and then nephrectomy subsequently, in suppurative conditions of the kidney where a removal of the organ is demanded. The reasons for this are, it seems to me: (1) If the renal pelvis is thoroughly drained and all collections of pus are made to open into it, the kidney will be greatly reduced in size and can be more easily removed through a small incision. (2) As the result of the nephrotomy, plastic lymph is thrown out, which protects the system in the event of a secondary nephrectomy from the absorption of bacteria and purulent material. (3) After nephrotomy and drainage through the loin, the function of the remaining kidney can be accurately studied and ascertained. These remarks apply, however, only to the cases in which the supuration is confined to the kidney itself, and not to those in which the perirenal tissues are involved. My patient was 59 years of age, and had been healthy up to eight years ago. He then had acute retention, which was relieved by catheterization in a hospital. This was followed by fever. Since this attack he had never been perfectly well, and the urination had not been entirely normal. His urethra had been stretched many times and his bladder often washed out without in the least relieving his symptoms. When I first saw him, about four months ago, he had a temperature of 101° , the urination was difficult and painful, and there was considerable pus and albumen. There were no casts in the urine. After urination I introduced a catheter and found the bladder empty. Abdominal palpation showed much muscular rigidity on the right side, even under chloroform, but there appeared to be disease of the right kidney. His condition was so bad that I determined upon immediate nephrotomy. The kidney was much enlarged and contained considerable foul pus. After evacuating this I irrigated the kidney, and found a uric acid calculus covered with a phosphatic deposit, which was removed. Two parallel drainage tubes were then inserted and the wound packed with gauze. His condition improved considerably, so that after two weeks I decided to remove the organ. By breaking down the edges of the wound I peeled out the kidney. The surrounding tissues had become decidedly rigid from plastic lymph since the first operation. The nephrectomy took only 14 minutes, and was followed by no shock. The

kidney was about three-fourths of the normal size of the organ. There was scarcely any renal tissue left, and there were numerous areas of coagulation necrosis. The accompanying photograph shows to what extent the kidney had become disorganized.

Acute and Chronic Conditions of the Prostate.

—**Dr. L. BOLTON BANGS:** My object in this paper is to show the relation between prostatic disease of later life and the errors and ignorance of youth. The physician should remember the relation of the habits of youth to the later condition. To many, an early marriage prevents some of the ill results. The intervals between coitus should be long enough for the dilated vessels to recontract. This interval will vary with the individual, according to his age, temperament, nervous sensibility, and recuperative power at the time. For the average man in the higher classes, I think the act should not take place more than once a week—possibly twice a week may not be injurious. If it is practiced oftener than this, the result is an exaggerated growth of the prostate. Inflammatory changes may ensue, and may be either acute or chronic from the beginning. But suppose the man practices "withdrawal." The almost inevitable and speedy result is damage to the prostate. The same result is observed in men who are married to women who cannot or will not submit to proper sexual intercourse. I am not prepared to say that all cases of prostatic enlargement, with the exception of tumors, are due to a preceding life of sexual hyperemia; but I have many carefully recorded cases having, it seems to me, an important bearing upon prostatic enlargement.

The treatment divides itself into: (1) A consideration of the acute and subacute conditions of the prostate; and (2) a consideration of hypertrophy of the prostate. Each individual must be treated in accordance with the conditions present. If a patient be a celibate, continence should be insisted upon; if married, moderate sexual intercourse should be allowed. For reflex sensations, such as intolerable itching of the perineum and scrotum, hot sitz baths are very beneficial. There is usually more or less urethritis associated with the prostatic inflammation. Local treatment of both the urethra and prostate is necessary. Hot irrigation of the urethra, followed by a gentle introduction of a sound to the prostatic urethra, is desirable. This must be followed after a time by a solution of 1:1000 solution of nitrate of silver introduced about once in five days. Massage of the prostate through the rectum certainly does aid in emptying the overloaded vessels and in stimulating the lymphatics. This bears no relation to the so-called stripping of the seminal vesicles. Massage should not be employed until the acute symptoms have passed away. It should be remembered that the bladder which contains residual urine is more likely to become septic than the bladder which empties itself completely; hence the passage of a catheter into such a bladder should be considered an important surgical procedure. With the patient in bed and the pelvis raised, the urethra should be irrigated with hot boric-acid solution at intervals of an hour or two. This often results in the spontaneous evacuation of the urine, and it should be tried before resorting to catheterization. I believe that the gradual emptying of the bladder by removing a little more urine from it at each catheterization is less likely to be followed by shock than the complete evacuation at one sitting. Catheter life is much more easily carried out among the higher classes than among the ignorant. For the latter some form of drainage is necessary, or else prostatectomy must be done. The death-rate is still from

20 to 25 per cent. from this operation. Another operation is at our disposal—that of double castration—proposed recently by Dr. WHITE. I believe this method is entitled to careful consideration. Dr. WHITE claims benefit in 83 per cent. of the cases, but his mortality rate is still very high. The difficulty is to decide in what cases this operation is suitable.

In conclusion, I would say that the enlargement of the prostate begins earlier than is commonly supposed—that it is not due to senility. I have seen prostatic enlargement in men of 40 years. Dr. MUDD has removed an enormously enlarged prostate from a man 27 years of age. I believe that prostatic enlargement begins during active sexual life.

Dr. S. ALEXANDER: I have been extremely interested in this paper, and yet I am not at all convinced that the relation of sexual hyperemia as a cause of prostatic hypertrophy in after-life is as stated. The subject has been presented in a very attractive and persuasive manner, but the facts do not seem to me to be sufficient to warrant us in accepting it as the efficient cause of prostatic hypertrophy. One reason for making this objection is that a comparison of the very large number of cases of sexual hyperemia and the number of cases of prostatic enlargement in after-life shows that there should be a great many more cases of prostatic enlargement than actually exist. I do not doubt that sexual hyperemia bears some relation to prostatic hypertrophy, but I cannot believe that it is the efficient cause of the prostatic hypertrophy in old men. I am in accord with the reader of the paper regarding the greater part of the treatment for prostatic hypertrophy. I do not feel, however, after a careful perusal of Dr. WHITE's paper, that we can offer double castration to patients with enlarged prostate, as "an operation of choice," and without stating to them that the operation is as yet experimental.

Dr. BANGS: I am aware of the weakness of a part of my position, but I am unable in a paper of this scope to place before you many important details. I have not myself performed the operation of castration for hypertrophy of the prostate, partly because I have been unable to promise cure or freedom from risk. I believe, however, that the records of careful observers show that a fair number of cases will be benefited by castration. I agree with Dr. ALEXANDER that we should very carefully and candidly place this subject before our patients.

SECTION ON GENERAL MEDICINE

February 18, 1896

WILLIAM HENRY PORTER, M.D., Chairman

Syphilis as a Factor in Disease of Heart and Lungs.—Dr. LEONARD WEBER: I propose to cite some cases taken from my notebook, and to deduce certain conclusions therefrom.

CASE I.—A man, 38 years of age, with slight nasal catarrh, and a few small cicatrices in the pharynx. The lungs were normal; the heart somewhat hypertrophied. He admits having contracted syphilis about 12 years ago, but he suffers from neuralgias, and there is now tenderness over the manubrium sterni. The diagnosis was syphilitic infiltration of the submucous tissue of the trachea. I gave him the protoiodide of mercury for one month without benefit. He was then given the iodide of potassium up to two or three drachms, three times a day, and at the end of three months he appeared to be cured. He passed from observation after three years.

CASE II.—A merchant of 60 years, a high liver, who had dyspnea and rapid heart action. I found dullness over the upper part of the sternum and ascending aorta. There were suspicious copper-colored cicatrices on the legs, and he had frequent headaches and suspicious neuralgias. He improved considerably under the use of iodide. I have heard from him two or three times in the last four years, and, while not well, he is very much better.

CASE III.—A man, 28 years of age, who had contracted syphilis two years before coming under observation. There were cutaneous lesions present at the time. There is a family history of tuberculosis. He married contrary to my advice, and the first child succumbed to syphilis. This man himself died of pulmonary tuberculosis last summer, and his wife is now in the last stage of pulmonary tuberculosis, although she has never shown any evidence of syphilis. I think the syphilis made the man an easy prey to pulmonary tuberculosis.

CASE IV.—A man 50 years of age had had a venereal sore when 22 years of age. After the age of thirty there was gradual alopecia, and he suffered greatly from boils. When I saw him there was dyspnea on exertion, a dry cough, and cardiac palpitation. The heart was decidedly enlarged in all directions, but there were no murmurs. He lived to be sixty before he developed cardiac failure. The autopsy revealed a "bovine" heart, with diffused but not very advanced fatty degeneration. On the upper surface of the right lobe of the liver were cicatrices.

CASE V.—A man 58 years of age, a vigorous and active physician, who had no hereditary taint. When 22 years of age he had a venereal sore after intercourse with a woman who was subsequently found to be syphilitic. From the forty-second year on, various neuralgias and rheumatoid pains developed, and after a while there were symptoms of weak heart. I found the apex beat just perceptible when at rest, and the cardiac area increased to the left. The knee-jerks were weak. He complained of great muscular fatigue on slight exertion. I advised taking small doses of iodide of potassium, and nuxvomica to strengthen the heart. He has been improved by this treatment, but the heart action is still weak.

CASE VI.—A woman, 45 years of age when she died of uremia. She married at the age of eighteen, and was then particularly healthy. Her husband had had syphilis, but appeared to be entirely well. She gave birth to a seven-months fetus. Soon after that, symptoms of subacute broncho-pneumonia developed. I thought at first that she had pulmonary phthisis, but repeated examinations showed an indurated and limited inflammation of the lung, not phthisical. She gradually recovered under climatic and other treatment, but she was not as strong as formerly. A few years later the lungs appeared to be sound, but she had a papular eruption about the scalp. In 1882 she married a man whom I knew to be free from syphilis. She aborted two or three times, and then showed the signs of an insidious development of interstitial nephritis. In 1887 she began to develop neuralgic pains. Iodide could not be tolerated, and mercury was not thought to be advisable on account of the condition of the kidneys.

CASE VII.—A man, 38 years of age, was treated with mercury and the iodide for a time, but his general health remained impaired. He began to be troubled with nasal and bronchial catarrh, and for these he sought my advice in 1890. He had no fever at any time. He was treated with anti-syphilitic remedies with good result. There was a

relapse in 1893, which yielded to appropriate treatment. Later on he developed some cutaneous lesions. Such cases are generally associated with bronchiectasis.

Aside from the baneful effects of the syphilitic virus on the bronchial tubes, I believe that endocarditis and weakening of the cardiac muscle are much oftener due to syphilis than is generally supposed. In the majority of cases the syphilitic individual experiences a diminution of that factor described as "resistance" to diseases. We cannot deny that syphilis creates a tendency to various grave disorders. In a previous paper I have reported 125 cases in which the baneful effects of syphilis on the nervous system did not make their appearance in patients who had continued proper treatment for as long a time as I thought to be necessary to secure a complete destruction of the syphilitic virus. It is certainly remarkable that a few patients who would not carry out the treatment for a sufficient length of time succumbed to the later effects of syphilis.

Dr. WILLIAM H. THOMSON: The subject of the paper is an exceedingly large one, so that I would refer particularly to my own clinical experience. I am inclined to think that syphilitic disease of the heart is very common, and pulmonary syphilitic disease is very uncommon. I remember only one case in which I made a very lucky hit of diagnosing the disease of the lungs to be of syphilitic origin when the symptoms were of a very serious character. A gentleman told me that he had a cough and had spat up blood, and he was quite emaciated.

I was much surprised to find no evidence of tuberculosis in the apices, but over the middle lobe of the right lung there was a peculiar leathery sound on percussion without a corresponding increase in the fremitus. After careful examination of the path of the right bronchus, I came to the conclusion that the patient had a pretty well-developed peribronchitis. I found then that he had had syphilis for about four years. His improvement was very rapid under antisiphilitic treatment, and all of these physical signs disappeared after a short time. I think that in this instance the diagnosis on my part was really nothing more than a good guess. Syphilis of the lung is apt to be fibroid in character, and hence it will simulate fibroid phthisis. Where there is a history or evidence of syphilis I always try the effect of antisiphilitic treatment on such cases. Of course in syphilitic disease simulating phthisis, we do not find the tubercle bacillus. Syphilitic heart disease and syphilitic endarteritis, in my opinion, are very common. A careful inspection of the arterial and capillary circulation will aid us greatly in making the diagnosis. If an individual comes to us with a weak and irregular and intermittent pulse, without any evidence of valvular disease, and he admits having had syphilis, we are justified in concluding that the cardiac affection is due to syphilis. Syphilitic endarteritis does not affect the small arteries in such a way as to throw extra work upon the heart, and it does not produce the same obstruction of the capillary circulation of the skin which is observed in general endarteritis. In general endarteritis there is consecutive heart disease; in syphilitic endarteritis the heart-walls themselves are the seat of the lesion. By a process of exclusion we can arrive at a diagnosis of syphilitic disease of the heart. I think that fully 10 per cent. of the cases of heart failure occurring in males over forty years of age are due to syphilitic disease of the heart. I agree with the reader of the paper that iodide of potassium is of the greatest value in the treatment of this condition, yet

I think I have always obtained the best results from the use of the mercurial vapor bath. It has seemed to me that the later changes in the viscera due to syphilis are best treated by this vapor bath, except in cases of syphilitic disease of the nervous system.

Dr. LOUIS FAUGÈRES BISHOP: I recall seeing a case of pulmonary syphilis in St. Luke's Hospital. The patient had been at first admitted to the tubercular ward, but the diagnosis was finally made by finding that the tubercle bacillus was absent, and that there was evidence of syphilis in other parts of the body. Still post-mortem observation of such cases is so rare that one can never feel certain of the diagnosis. The therapeutic test would seem to have been overvalued when the possible spontaneous recovery of non-syphilitic disease is not considered and also the fact that iodide and mercury cure other than specific disease.

Dr. WEBER: Syphilis of the lung, or rather of the bronchi, does occasionally occur, although it is true it is not common. I consider the point made by Dr. THOMSON regarding the condition of the cutaneous circulation a very useful one in differential diagnosis. I have had a very satisfactory experience with the mercurial vapor baths in cases of constitutional syphilis presenting lesions during the first two or three years of the disease. Of late years I have not used them, because I believe I have had as good if not better results from mercurial inunctions, or from hypodermic injections. I have come to the conclusion that subcutaneous injections of calomel emulsions, administered once a week, are admirable in removing the constitutional effects of syphilis. I formerly employed the bichloride of mercury subcutaneously.

Indigestion of Starchy Foods; Treatment.—

Dr. REYNOLD W. WILCOX: I have spoken of the symptoms and diagnosis of the indigestion of starchy foods in a paper recently read before the New York State Medical Society; to-night I shall consider only the treatment. The proper treatment of this form of indigestion must take into account its causation. Dr. BULKLEY has called attention to the fact that if a person will take hot water about half an hour before meals there will be no great desire to take liquids with the meals, and hence much is done toward preventing indigestion of starchy foods. Too great acidity of the stomach contents is unfavorable to starch conversion. Large doses of sodium bicarbonate, it has been found, may be given steadily for long periods of time without harm, and by this means hyperacidity can be corrected. It neutralizes the free hydrochloric acid in the stomach, but probably has no effect on the acids in organic combination. Constipation is the rule in patients of this class. The administration of salines will diminish the acidity of the urine, and usually increases the alkalinity of the intestinal contents. It is well to administer the normal sodium phosphate in a glass of hot water on rising in the morning. To this is added 15 to 40 grn. of sodium bicarbonate. Alkalies facilitate the pancreatic digestion, and this probably explains the beneficial effect of the treatment. Diarrhea sometimes alternates with constipation. Under such circumstances neither opium nor the intestinal astringents should be given. Intestinal antiseptics should be continually administered. Naphthol has the best bacteriological basis, but it is locally irritant, and by increasing the quantity of chlorine interferes with starch digestion. Bismuth salicylate may be used, but it is not desirable if the kidneys are not in good

condition. Bismuth naphtholate I have used in doses of 10 to 20 grn., administered in powder, or in capsules after meals, and I have found it quite useful. The quantity of mucus is reduced by the administration of sodium phosphate. The preparations of pancreatin found in the market are often inert. It has been proposed to coat pancreatin pills with keratin, but it is not impossible that such pills will pass entirely through the intestinal canal without dissolving. Probably the best coating is that suggested by Dr. W. H. FLINT, and consists of an alcoholic solution of shellac containing a sufficient quantity of balsam of tolu to impart the proper degree of elasticity to the coating. In cases of gastric hyperacidity the use of vegetable diastase, administered with sodium bicarbonate, has given good results. The use of malt extracts in the treatment of indigestion of starchy matter has given some good results; but the liquid extracts usually contain too much alcohol to admit of their having much power to convert starch. I have been studying a diastase of Japanese preparation named Taka Diastase for several months past. The results so far have been superior to those obtained with other remedies. It furnishes a ready means by which the patient can preserve nutrition upon a mixed diet.

Dr. C. M. QUIMBY: I have become convinced that the addition of saliva, even after the food has been swallowed, does decidedly aid digestion. Experience with chewing-gum substantiates this view. In some forms of dyspepsia I have derived a great deal of assistance from the administration of pancreatin; and although this is all wrong theoretically, according to the teaching of some, I feel that there can be no doubt about the practical value of pancreatin as an artificial aid to digestion.

Dr. A. H. SMITH: I should like to ask why it is the author prefers sodium bicarbonate to other alkalies. I have used a good deal the hydrated magnesia in the form known as "milk of magnesia." It is not necessary to use the proprietary preparation. It is merely a solution of magnesium sulphate precipitated by ammonia, and washed until the ammonia has been removed, and then enough water from the last washing retained to separate the flakes of the hydrate of magnesia and keep them in fluid form. A much smaller quantity of this preparation will neutralize a given amount of acid than will sodium bicarbonate. It is also free from the objection of the disengagement of gas, which takes place often after the ingestion of sodium bicarbonate. If there is constipation present, the magnesia, being a gentle laxative, presents an additional advantage. The statement made by the last speaker, regarding the effect of adding saliva after swallowing food, is easily verified, and it furnishes some grounds for the otherwise reprehensible practice of chewing something to excite the action of the salivary glands. The very common practice of chewing gum must have some basis in popular experience.

Dr. F. A. BURRALL: I recently read an article from a German physician, who, on the ground that the action of the salivary glands is of great service in assisting digestion, recommended the use of certain substances, such as slippery-elm, between meals, to excite the secretion of these glands. It was brought forward as a new treatment. It resembles the popular idea with regard to chewing gum. We sometimes see a nervous origin for this form of indigestion, and this factor should not be overlooked in the treatment. Often we cannot secure the necessary environment, and hence we must resort to drugs. It is a common experience that indigestion due to worry disappears when the worry ceases. In

cases of nervous origin I have found that strychnia combined with ipecac is of service. Flatulence is one of the early symptoms of inactivity of the liver, and is relieved by the occasional use of calomel and ipecac, half a grain of each at night, in combination with a mild laxative, or strychnia and ipecac (strychnine $\frac{1}{4}$ to $\frac{1}{2}$ ipecac) taken at meals.

Dr. WILCOX: There is no doubt but that increasing the flow of saliva does greatly benefit digestion, and that chewing gum may act at times as a very decided aid to digestion. When there is a free and abundant flow of saliva into the stomach, there is no doubt that sometimes complete conversion of starch may take place in the stomach; indeed this has been shown by the experiments of Dr. J. H. KELLOGG, of Battle Creek. I believe my preference for sodium bicarbonate is largely due to the force of habit. I thought at one time that the prolonged use of sodium bicarbonate would be injurious by the production of intestinal catarrh, but many articles in current literature seem to show very conclusively that this remedy does not have any such deleterious effect. Pancreatin certainly seems to be beneficial in some cases; but it is usually in those in which there is low acidity in the stomach, thus favoring the action of the pancreatin.

BOOK REVIEWS

Grundriss der Pathologischen Anatomie. Fuer Studierende und Aerzte.—By Prof. Dr. ROBERT LANGERHANS, Prosector am Krankenhause Moabit-Berlin. Second enlarged and revised edition, with 136 illustrations. 8vo; pp. x, 1-566. Berlin: S. Karger, Charitestr. 3, 1896. Price, 12 marks (\$3.50).

This treatise, coming, as it does, from the celebrated laboratory of RUDOLPH VIRCHOW, in Berlin, the world's center of knowledge in pathological anatomy, should arouse the interest and attention of all earnest workers in the field of pathology in its strictest sense. For years the author has enjoyed the closest relations with the great German pathologist, and his teachings naturally reflect the thoughts, views, and methods of the master. This should be gratifying to all pupils of the Berlin school of pathology; for, aside from the eminent works, "Die Krankhaften Geschwülste," "Die Cellularpathologie," and "Gesammelte Abhandlungen," published many years ago, we have no representative record in a compact form of VIRCHOW's teachings in recent years.

While, in many instances, the author has reverently followed in the footsteps of his chief, the discussions of the various subjects give ample evidence of independent thought. Indeed, the spirited, terse, but sufficiently exhaustive descriptions, based upon a rich experience, the individuality of conception, and the harmonious arrangement of the subject-matter, lend to the book an especial charm and interest. In his preface the author modestly informs us that the book is intended chiefly to serve the beginner as an introduction to the study of pathology; but in studying the various chapters, we find the most important and frequent processes are discussed with a fullness equal to the ordinary requirements of the more advanced. This is particularly true of the sections devoted to the consideration of the blood, and disturbances of the circulatory apparatus.

In keeping with the purposes of the work, the author brings forward no new theories, but deals

only with the more or less generally accepted views in the most abridged possible form. In almost every instance when handling subjects still open to controversy, but one view is advanced—namely, that of VIRCHOW. These features most admirably adapt it for instruction purposes in the laboratory and at the autopsy table. As a text-book of pathology, it is the best and most thorough of its class.

Lectures on Appendicitis, and Notes on Other Subjects.—By ROBERT T. MORRIS, A.M., M.D.; with illustrations by Henry Macdonald, M.D.—Pp. VIII, 163. New York: G. P. Putnam's Sons, 1895

The presswork and illustrations in this little book are both beautifully done, and the publishers deserve great credit for the way in which they have presented the subject. The "Lectures on Appendicitis" occupy just one-half of the book, and give a very good *résumé* of Dr. MORRIS's views on this subject. His style is peculiar and emphatic. The book opens with the preparation of the surgeon and the patient for operation, and we find a few points in which the individuality of the author is emphasized, such as giving 5 grn. of salol after emptying the bowels "because it lessens fermentation;" and the use of the reef sponge, which is prepared in the old way. He only uses silk in one place in surgery, and that is for ligating the inner tube of the appendix, while catgut he considers the ideal material for sutures and ligatures. He prefers aristol to iodoform, because it adheres to tissues much more tenaciously, and because it seldom, if ever, produces any toxic effects, and because it smells better.

He considers that the vermiform appendix is a rudimentary structure, which formed an important part of the alimentary tract in the days when we needed a wisdom tooth for crushing palms and ferns, and a large absorbing surface for extracting their scanty nutriment. We can hardly understand why its diameter should be necessarily that of the quill of the primary feather from the wing of a Canada goose, and we question whether any other goose would not do as well.

He considers that the appendix should always be looked upon as a test-tube full of culture media and forming a nook in which bacteria lurk dangerously when once the protecting structures of the appendix have been destroyed. This feature undoubtedly explains the author's habit of removing so many appendices which give only slight indications of disease. His explanation of the disgusting fecal odor which is often found in large abscesses contiguous to the bowels is that it is the odor of the colon bacillus; and if this is so it will demonstrate frequently the bacillus to which abdominal suppuration is due, and may lead us at times to make a diagnosis between the kinds of infection we are dealing with without recourse to a bacteriological examination of the pus. The author says there is but one rule to be followed, and that is to isolate the infected appendix as promptly as we isolate a case of diphtheria, and he adds: "An infected appendix is isolated when it is out of the patient." He places the mortality in cases operated upon by skilled surgeons at the proper time at less than 1 per cent. He does not now advocate the removal of the normal appendix during the course of other surgical procedures, for the reason that the death-rate of no surgical operation can be reduced absolutely to zero. The technique of his method of

operating is well outlined, and the general style is clear and good.

It is unfortunate that in a book in which so much care has been taken with the typography and presswork there should be errors in proofreading, but several are noticed in looking the work over. A list of the author's operations for appendicitis—that is, his first one hundred cases—is appended to this portion of the book. The latter half of the work is devoted to notes on various subjects, which are largely a reproduction of papers already published from time to time, and which emphasize in many cases the peculiar and aggressive views of the author.

Epidemic Ophthalmia: its Symptoms, Diagnosis, and Management; with Papers upon Allied Subjects.—By SYDNEY STEPHENSON, M.B., F.R.C.S. Ed., Surgeon to the Ophthalmic School, Hanwell, W. Edinburgh and London: Young J. Pentland; New York: Macmillan & Co., 1896. Pp. i-viii-278. Price \$3.00.

This volume, by this well-known worker in London, is a series of essays dealing with various sides of this important subject, and the contents are based upon the results of an extensive and intimate relationship with ophthalmia. As the author says, "there is reason for believing that epidemic ophthalmia is not generally understood, yet, as involving wide economic and social interests, it is, apart from its purely scientific aspect, a subject of no little importance." "The malady has worked havoc in many of our parochial schools, and thousands of pounds have been expended in order to stay its ravages and to stamp it out of existence."

The book is divided into four parts: "Epidemic Ophthalmia: its Symptoms, Diagnosis, and Management"; "A Clinical Inquiry into the Prevalence and Significance of the Follicular Granulation of the Conjunctiva"; "The Treatment of Trachoma and of its Complications"; "The Treatment of Follicular Conjunctivitis."

There is also an appendix showing the "Lavatory Arrangements"; an "Index"; "Index of Authors"; and "Literature." There are 25 illustrations, with a frontispiece showing the micro-organisms found in the different forms of epidemic ophthalmia. He includes under the title "Epidemic Ophthalmia":

1. Muco-purulent or catarrhal ophthalmia.
2. Purulent ophthalmia.
3. Diphtheritic ophthalmia.
4. Acute trachoma.

In high-class schools the epidemic nearly always belongs to the muco-purulent or catarrhal type of disease; in those of a lower standing socially (parochial), acute trachoma is more common. The diphtheritic form has been rarely seen in England, though common in Germany and Holland.

We regret that a more extended review cannot be entered into, as it is highly important that this subject should be thoroughly understood. We can commend the book to all interested in hygiene, and especially to those connected in any way with public institutions and asylums. It is full of careful detail and important facts, and the literature of the subject is carefully covered, showing great research and diligence. It is an important addition to ophthalmic literature. The publishers have given an excellent paper, good binding, and type better than usual. It is a pleasure to have such a book in these days of cheap printing. We shall welcome a second edition.

Miskel. A Novel. By L. M. PHILLIPS, M.D., of Penn Yan, New York. Advance copy of No. 2 of the Doctor's Story Series to be issued March 1st in paper. Pp. 266. Price, 50 cents. Baily and Fairchild Co., New York.

A sensational novel named after one of its characters. We find in it nothing that we would care to read again. It is a fair sample of the so-called "yellow-covered" literature. Sentimental young women revel in books of this character. There is love enough of the proper and improper kind in it to raise to the highest pitch the hysterical affections of the love-story-reading Miss of seventeen, and sufficient fighting, killing, and attempted murders to kindle the enthusiasm of the young would-be Indian-slayer. There is a dramatic element in the book, which, if properly staged, would, we believe, rouse to fever-heat the blood of the gallery gods. The lovers' dialogues are unnatural and stilted. If the novel is intended for physicians' reading, we think they could employ their leisure time much more profitably, interestingly, and pleasantly than in reading pages of such impossible nonsense, strained situations, and ridiculous stuff.

Color-Vision and Color-Blindness. A Practical Manual for Railroad Surgeons.—By J. ELLIS JENNINGS, M.D. (Univ. Penn.), Formerly Clinical Assistant Royal London Ophthalmic Hospital (Moorfields); Lecturer on Ophthalmoscopy and Chief of the Eye Clinic in the Beaumont Hospital Medical College; Consulting Oculist to the Missouri, Kansas, and Texas Railway System, etc. Illustrated with one colored full-page plate and twenty-one photo-engravings. Crown octavo, 110 pages. Phila.: The F. A. Davis Company, 1896. Price, cloth, \$1 net.

This volume is one that is practical and, as the author says in the preface, "does not aim to be original," but he has "endeavored to produce a practical work on color-blindness which shall contain all that is essential to a perfect understanding of the subject." It is divided into ten chapters—giving a Historical Sketch; the Physiological Anatomy of the Retina; Physics of Light; Color Sensations; Color-blindness; Methods for detecting Color-blindness; Selection Tests; Contrast Tests; Special Tests; Acquired Color-blindness; Pennsylvania Railroad Company's Instructions for Examination of Employés as to Vision, etc. The chapter on "Color-blindness" is very interesting, Jews in England being very commonly affected by it, and in the earlier days Quakers were found very prone to the impairment, owing probably to intermarriage, both of these sects being extremely careful about this rite.

Heredity is a common cause, and Horner's law, that sons of daughters whose father was color-blind are so still holds good. No satisfactory reason seems yet to be advanced why women are less frequently found to have it, only one-fourth of one per cent. of females being affected.

The usual reason advanced is that women for generations have had to do with color, and thus the constant handling and comparison of colors has educated their perception. This reason does not seem to us a good one, as men in the olden time dressed in gay and bright colors just as much as the women; besides, the women, if dressed in brighter clothing, certainly ought to have afforded to the eyes of their companions an object-lesson in colors. One man in every 25 is color-blind, usually to either red or green.

The practical advantage of color-blindness is best illustrated in engravers, as they see only the black and white, light or shade, or the effect; this class has a great advantage over those who see color.

The dangers of color-blindness are obvious, especially in sailors or railway men, as red and green are the two most frequent colors used for signals, and the two most common forms of color-blindness. All of the most recent tests are described in the text, together with the author's worsted test, and a blank is depicted to show how to easily record a perfect color sense.

To those who wish to know in a complete and perfect way how to test for this defect, and all the various methods employed, we commend this book. It is clear in style and full and up to date.

BOOKS RECEIVED

The Motor Mechanism and Some of its Diseases. With Illustrative Cases.—By W. H. RILEY, B.S., M.D., Member of the American Neurological Association, Michigan State Medical Society, etc. Pp. 79, with illustrations. Battle Creek, Mich.: Modern Medicine Publishing Co., 1895.

Bibliothek der gesamten Medicinischen Wissenschaften für praktische Aerzte und Specialärzte.—By HOFRATH, Prof. Dr. A. DRASCHE, of Vienna, and many others. Nos. 81, 82, 83-4, 85, 86, 87-8. Complete in about 175 parts. Vienna and Leipsic: Carl Prochaska, 1895-96. Price per part, M. 1 (35 cents).

Stories of a Country Doctor.—By WILLIS P. KING, M.D., first vice-president of American Medical Association, etc.—No. 1 of Doctor's Story Series.—Pp. 400, with illustrations. New York: Bailey & Fairchild Co., 1896. Price, paper, 50 cents.

The Year-book of Treatment for 1896: A Critical Review for Practitioners of Medicine and Surgery.—By 25 eminent contributors. Pp. 476. Philadelphia: Lea Brothers & Co., 1896. Price, cloth, \$1.50.

A Pictorial Atlas of Skin Diseases and Syphilitic Affections.—By ERNEST BESNIER, A. FOURNIER, TENNESON, HALLOPEAU, DU CASTEL, HENRI FEULARD, and LEON JAQUET. J. J. Pringle, editor. To be published in 12 parts. Part II. Illustrated with photo-lithochromes and explanatory woodcuts. London: The Rebman Publishing Company. Philadelphia: W. B. Saunders, 1895. Paper, \$3.00 per part.

A Manual of Medical Jurisprudence and Toxicology.—By HENRY C. CHAPMAN, M.D., Professor of Institutes of Medicine and Medical Jurisprudence in the Jefferson Medical College, Philadelphia. Second edition, revised. Pp. 254, with 55 illustrations and 3 plates in colors. Philadelphia: W. B. Saunders, 1896. Price, cloth, \$1.50.

The Principles of Bacteriology: A Practical Manual for Students and Physicians.—By A. C. ABBOTT, M.D., First Assistant, Laboratory of Hygiene, University of Pennsylvania. Third edition. Pp. 492, with 98 illustrations, of which 17 are colored. Philadelphia: Lea Brothers & Co., 1895. Price, cloth, \$2.50.

The Diseases of the Will.—By TH. RIBOT, Professor of Comparative and Experimental Psychology in the Collège de France. Translated from the eighth French edition by Merwin-Marie Snell. Pp. 134. Chicago: The Open Court Publishing Co., 1894. Price, cloth, 75 cents.

EDITOR'S NOTES

Ohio Medical College.—This institution has been absorbed by the Cincinnati University, becoming its medical department.

The Manhattan State Hospital (the New York City Asylum for the Insane) will, under an opinion rendered by the Attorney General, come into the possession of the city on the 28th inst.

The New York Dispensary.—During the past year 52,000 patients were treated at this institution, making a total of over 2,500,000 to whom gratuitous medical advice has been given since the opening of the Dispensary in 1790.

Diphtheria Hospital Site.—A bill authorizing the location of the Diphtheria and Scarlet-fever Hospital at the foot of East Seventeenth street, which is to be built by Mrs. Minturn, has been passed on favorably by the Cities Committee of the Senate.

The Health Bureau of Allegheny County, Pa.—The prominent physicians of the city of Allegheny have petitioned the Mayor and the Common Council to remove the lay superintendent of health and to appoint a medical man to the position.

Meharry Medical College.—This institution, which is situated in the State of Tennessee, and is one of the first to suitably educate the colored race in medicine, recently held its annual commencement exercises. The graduates were twenty in number, including one woman.

The Brooklyn Alumni Association, of Bellevue Hospital, held their second annual dinner at the Lincoln Club last Monday evening. The following officers were elected for the ensuing year: President, Dr. G. R. FOWLER; vice-president, Dr. G. MCNAUGHTON; secretary, Dr. L. W. PEARSON.

The Camden County (Pa.) Medical Society.—This society celebrated its golden anniversary on the evening of the 12th instant. Busts of two of the most distinguished members and practitioners of the county were presented—one of Dr. RICHARD MATLACK COOPER and one of Dr. OTHNIEL HART TAYLOR. The former was a great grandson of the distinguished American novelist.

New York County Medical Society.—At the stated meeting of this society, held on the 24th instant, it was voted to send an earnest protest to the Judiciary Committee of the Senate against the passage of the Stanchfield bill, which we criticise in this issue of the BULLETIN. At the same meeting a bill entitled "To Legalize the Optical Society of the State of New York" was strongly condemned, and it was voted that a protest against its passage be sent to Albany. The bill introduced in the Assembly, looking to the abolition of the office of Coroner, received the commendation of the society.

Medical Society of Erie County, N. Y.—This society has entered an earnest protest against the Stanchfield bill, which, as noted editorially in this issue, if adopted by the Assembly, will lower the requirements requisite for the practice of medicine in this State. A committee, consisting of Drs.

MANN, HOPKINS, and HUBBELL, were appointed to go to Albany and present the protest to the judiciary committee. The same society also entered a protest against the Assembly bill incorporating the Optical Society in the State of New York. The objection to this bill is that it will give a legal standing to opticians and to those who fit glasses who are not qualified to perform the work without detriment to the eyes of the community.

The Connecticut Hospital for the insane at Middletown is said to have at the present the large number of 1707 inmates.

The New York Red Cross.—Papers of incorporation have been granted to the New York Red Cross, founded under the auspices of the American National Red Cross, of which Miss Clara Barton is the president.

The New York Red Cross is the first, and as yet the only, hospital in the United States that performs Red Cross work; and that exists as a result of the "Treaty of Geneva" or "Red Cross," and as such receives patients of all nationalities, irrespective of their time of residence in this country, and especially when they have been sent by a Consul-General of a foreign power; likewise any member of the navy, army, or State militia when sick or disabled.

The consulting staff consists of Drs. T. Gaillard Thomas, George F. Shrady, Augustus G. Caillé, and William H. Porter; the visiting staff of Drs. A. Monac Lesser, C. Ruston Ellison, Thomas A. McNicoll, H. Gottlieb Steger, Emil Mayer, and Adolph Zeh.

All medical men of the navy, army, and State militia are, by virtue of their offices, associated physicians, and have the right to personally treat all cases sent by them to the hospital.

State Hospitals Bulletin.—We are glad to welcome the first issue of the State Hospitals Bulletin. It is to be a quarterly report of clinical and pathological work in the State hospitals for the insane and their Pathological Institute. The ex-officio editors are the President of the State Commission in Lunacy, the Superintendents of State Hospitals and the Director of the Pathological Institute. The editorial committee is composed of Drs. P. M. WISE, C. W. PILGRIM, and S. H. TALCOTT, with the collaboration of the assistants and medical internes of the State hospitals. With the transfer of the New York City Asylums to the State system, the number of patients in the care of the State reached nearly twenty thousand. With such a wealth of material at its disposal, the new journal should rapidly attain a high rank in psychiatric literature.

Health Board Pensions.—A bill has been introduced in the New York Senate providing that any officer or employee in the New York Health Department may be pensioned after thirty years' service, and a bill was also introduced in the Assembly providing half pay on retirement after twenty years' service.

No Female Applicants.—It is reported that there are no applications from women for the positions open to them in the State hospitals. Such positions pay about \$1200 a year, and one would think that this would be sufficient inducement to the many women graduates in the State of New York. Is it that they fear political interference with their duties in case a position is secured?

A Curious Claim.—During war times a certain ISSACHOR ZACHARIE practiced his profession of "corn doctor" among the soldiers of the army, and he has presented a claim to Congress for \$45,000. He estimates that he treated the feet of at least 15,000 soldiers, and he considers \$3 a corn the proper remuneration. The claim was disallowed, largely on the ground that it is not a function of the government to keep the toes of the soldiers in order.

Fenton B. Turck, M.D., of the Chicago Post-graduate Medical School, on the afternoon of the 14th inst., by invitation of the faculty, exhibited his instruments for exploring and treating the interior of the stomach, and gave a practical demonstration on patients before the students of the New York Polyclinic. On the evening of the same date he also lectured to the same body on "Bacteriology and Pathology," with stereopticon illustrations. Dr. TURCK's ingenious instruments were fully described in his illustrated article in the BULLETIN, July 1, 1895.

Services at the Grave.—The clergymen of the Eastern District of Brooklyn at a recent meeting adopted a resolution appealing to the members of their respective congregations to relieve them from attendance at cemeteries after performing the burial service. They say that in this climate the custom is dangerous to the health of those who attend at the grave, and there are not a few in every church who bear in memory some fatal illness whose seeds were sown at the interment of some friend. It seems at once useless and wrong to make the respect we would show the dead put the living in danger. Now that the clergy have taken a stand on this matter, it may be that the warnings of the medical profession will at least be heeded.

Literary Note.—P. Blakiston, Son & Co., of Philadelphia, announce a book on "Appendicitis," by John B. Deaver, M.D., Assistant Professor of Applied Anatomy at the University of Pennsylvania, Assistant Surgeon to the German Hospital, etc. The book will be arranged in a practical and systematic manner. The history, etiology, symptoms, diagnosis, operative treatment, prognosis, and complications of this disease will be given in the order named. It will contain about forty illustrations of methods of procedure in operating, and typical pathological conditions of the appendix, the latter being printed in colors.

Obituary.—Dr. DAVID L. DAGGETT, of New Haven, Conn., died on the 23d instant. He was graduated from the medical department of Yale University in 1843. He had been a member of the Connecticut Medical Society since 1843, and had served as president of the New Haven County Medical Society. He leaves three sons, one of whom is a physician.

Dr. DAVID W. MAULL, of Wilmington, Del., died on the 24th inst., in the sixty-fifth year of his age. During the Civil War, the deceased served as Surgeon-in-chief of the Second Division, Second Army Corps.

Dr. WILLIAM O'MEAGER died of pneumonia on Monday, February 24. He was born in Ireland in 1831 and was educated in the public schools and at Queen's College, where he took courses in art and medicine, and also took first prize. In 1851 he was apprenticed to a London surgeon and acted as medical officer on the ship "Iowa," running from Queenstown to New York. In 1857 he took a de-

gree from the medical department of the University of the City of New York. From 1859 to 1861 he was editor of the *New York Medical Press*, which was the first medical weekly in the United States, and during this period he acted as house physician and surgeon to St. Vincent's Hospital. In 1861 he was made physician to the New York Dispensary, and from 1861 to 1865 acted as surgeon of the 37th and 39th regiments of the New York Volunteers. He was a member of the 2d Corps Examining Board of Surgeons of the 69th regiment in 1871 and 1872, and Surgeon-general of the State in 1874. He was elected coroner in 1894.

Army and Navy Items.—ARMY.—Major Joseph B. Girard, Surgeon, has been relieved from duty at the Presidio of San Francisco, Cal., and ordered to Jefferson Barracks, Missouri, for duty at that post, relieving Major Robert H. White, Surgeon.

Major White, upon being relieved from duty at Jefferson Barracks, proceeded to the Presidio of San Francisco, Cal., for station.

First Lieutenant William W. Quinton, Assistant-Surgeon, was relieved from duty at Fort Riley, Kansas, and ordered to Fort Logan, Colorado, for temporary duty.

Captain C. N. Berkeley. Macauley, Assistant-Surgeon, died February 6, 1896, at Fort Logan, Colorado.

First Lieutenant William W. Quinton, Assistant-Surgeon, was relieved from temporary duty at Fort Logan, Colorado, and ordered to Fort Grant, Arizona, for duty at sub-station, San Carlos, Arizona, relieving First Lieutenant Paul F. Straub, Assistant-Surgeon.

Lieutenant Straub, on being relieved, was ordered to Angel Island, California, for duty there, relieving First Lieutenant Charles E. B. Flagg, Assistant-Surgeon.

Lieutenant Flagg was ordered, upon being relieved, to Fort Du Chesne, Utah, for duty at that post, relieving Captain Henry D. Snyder, Assistant-Surgeon.

Captain Snyder, upon being relieved, was ordered to Fort Ethan Allen, Vermont, for duty at that station.

NAVY.—Medical Director P. S. Wales was placed on the retired list from February 27.

Surgeon D. M. Guitenus was detached from the *Montgomery*, and was granted six months' sick-leave.

Passed Assistant-Surgeon L. W. Curtis was detached from duty at Indian Head Proving-ground and ordered to the *Montgomery*.

Assistant-Surgeon L. Morris was detached from the Naval Hospital at Philadelphia and ordered to the Indian Head Proving-ground.

Medical Inspector Dwight Dickinson was ordered as member of the retiring board beginning with February 28.

Surgeon C. A. Siegfried was detached from the *Texas* and ordered to the *Columbia*. Surgeon W. G. Farwell was detached from the *Columbia* and placed on waiting orders.

Passed Assistant Surgeon J. A. Guthrie, detached from the *Texas* and ordered to the *Katahdin*.

Passed Assistant Surgeon C. H. T. Lowndes was detached from marine rendezvous, San Francisco, and granted one month's leave.

Assistant Surgeon C. P. Bagg was detached from the *Vermont* and ordered to the marine rendezvous, San Francisco, Cal.

Surgeon J. M. Steele was detached from the *Independence* and ordered to the *Monadnock*.

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THE DEMAND OF SCIENCE: VIVISECTION

PHYSICIANS and others interested in the progress of scientific medicine will do well to take note of the organized effort which is now being made in the District of Columbia and in the State of Massachusetts to secure the enactment of laws for the restriction of experiments upon the lower animals. It is scarcely necessary to call attention to the fact that without such experiments there could be no scientific biology, and medicine would have no scientific basis. Our knowledge of physiology, of toxicology, and of the action of many important medicinal agents has been largely gained in this way. Our precise knowledge of the etiology of a considerable number of the infectious diseases has been obtained by inoculating susceptible animals with pure cultures of the various pathogenic bacteria, and could have been obtained in no other way. By such experiments the demonstration has been made of the specific pathogenic power of the anthrax bacillus, the spirillum of relapsing fever, the tubercle bacillus, the glanders bacillus, the diphtheria bacillus, the streptococcus of erysipelas and of puerperal fever, the micrococcus of pneumonia, etc. The prevention of hydrophobia by Pasteur's method, the treatment of diphtheria by the antitoxin, the production of bovine vaccine virus, and other practical applications of the knowledge already obtained would be impossible if those who are urging anti-vivisection legislation could have their way. We cannot stop to enumerate the various important practical benefits which surgery has derived from animal experimentation; but it is evident that the experience gained in this way as regards the comparative safety of different methods of ligating arteries, of closing wounds

of the intestines, etc., has resulted in great improvements in surgical *technique* and in the saving of numerous valuable lives.

Yet, there are those who maintain that no valuable results have been attained by experiments upon the lower animals, and the anti-vivisection literature, together with much sensational nonsense, contains quotations from the writings of certain physicians which appear to support this view. No doubt these quotations, to a certain extent, are garbled, and in their proper connection would not give such positive testimony as to the ignorance of the physicians to whom they are credited. For, to deny the importance and value of the results which have been obtained by experiments upon the lower animals, is to give evidence of lamentable ignorance as regards the present position of the biological sciences, and especially of scientific medicine. But the argument that no results of importance have been attained, in view of the unimpeachable evidence to the contrary, is no longer given a very prominent place in anti-vivisection literature. This seeks rather to carry on the propaganda, which had its origin in England more than twenty years ago, by exaggerated accounts of the cruelty of the experiments performed; and the susceptibilities of many well-meaning and estimable members of the community have been aroused by the harrowing details of experiments which they are led to believe are frequently repeated in biological and pathological laboratories, but which few of those who devote their lives to research work in such laboratories have ever witnessed.

That physicians and others engaged in investigations, having for their object the promotion of human knowledge and the prevention or mitigation

of human suffering, are less humane than the members of the societies which have been organized for the prevention of cruelty to animals cannot be admitted for a moment. To pass laws subjecting them to penalties and to espionage by persons ignorant of the nature and objects of their experiments, as is proposed, would not only seriously hamper research work in all lines of biological investigation, but would be an uncalled for reflection upon the humanity of those members of the medical profession, and others, who are engaged in investigations of this nature. As a matter of fact anesthetics are habitually administered in all experiments which involve an amount of pain worthy of consideration; but they are not considered necessary in trifling operations, such as the administration of a hypodermatic injection or the vaccination of a calf for the purpose of propagating vaccine virus.

It is difficult to understand why these mischievous attempts should be made to secure legislation the effect of which would be to restrict scientific investigation, when there is such a broad field in other directions in which the crusade might be carried on with greater propriety. The trapping of animals for their furs is going on in all parts of the world, and the victims are held for hours, or even days, in the sharp jaws of the trap before they are finally dispatched. The huntsman leaves his uncaptured wounded game to a lingering death. If he is a humane man, he quickly kills the wounded bird or animal when captured, and it has not been thought necessary to pass laws requiring him to do so. The fisherman plays the bass or salmon with a sharp hook in its mouth for an hour or more, and no one protests, but the teacher of biology is to be prevented by act of Congress from exhibiting the circulation of the blood in the blood-vessels of the mesentery of a curarized frog. The farmer, by a cutting or crushing operation, castrates his colts, calves, sheep, and pigs, and capons are made by a painful cutting operation, but no one proposes legislation requiring the use of anesthetics in the performance of these operations. Under these circumstances, it is not surprising that members of the medical profession in general resent the officious meddling of the anti-vivisectionists in matters regarding which they, as a rule, have no personal knowledge or responsibility.

The Woman's Medical College, of Baltimore, celebrated its fifteenth anniversary on the evening of the 24th of February. This college has a three years' graded course, and averages about sixty students.

THERAPEUTIC ITEMS

Cotoin Against Phthisical Night-sweats.—A. VON SZÉKELY (*Lancet*, 1896, I, p. 255)

Cotoin is a crystalline principle obtained from coto bark. It usually occurs as a yellowish, crystalline powder, of a bitter, pungent taste; soluble in alcohol, chloroform, or ether, but almost insoluble in water.

Dr. SZÉKELY recommends cotoin as being very useful in checking night-sweats of phthisis. He gives it in doses of about 4 ctg. ($\frac{2}{3}$ grn.), in the form of a solution or made up with sugar into cachets. He also employs tincture of belladonna in combination with liquor arsenicalis, and considers this combination to be more successful than preparations of belladonna alone. Externally, a lotion for the body may be used with advantage; such as chloral 3 parts, distilled water and alcohol each 50 parts.

Sodium Bicarbonate in Colds.—L. D. BULKLEY (*Med. Record*, 1896, XLIX, p. 86)

Dr. B. accidentally made the observation, on his own person, that sodium bicarbonate is capable in many cases of controlling a common "cold," especially in the early stage of the trouble.

On one occasion he had experienced the general symptoms of shivering, coryza, sneezing, etc., and happened to have at the same time some acidity of the stomach. For the latter trouble he took two doses of sodium bicarbonate within half an hour. About an hour later he noticed that not only had the unpleasant stomach trouble been relieved, but the symptoms of the "cold" had been lessened. A few more doses then completely cured the cold.

Since then—for over two years—the author has used this remedy professionally and in his family, and has become satisfied of its value. It is important that the salt be taken just rightly, in order to derive from it the full benefit.

He prescribes 20 to 30 grn. (1.3 to 2 gme.) of the bicarbonate to be taken in 2 or 3 oz. of water every half hour for three doses, and a fourth dose at the expiration of an hour from the last one. Two to four hours are then allowed to elapse to see the effect, and the four doses are repeated if there seems to be a necessity. After waiting two to four hours more, the same course may be taken again, although this is not often necessary.

To be promptly effective, the treatment should be begun with the earliest indications of coryza and sneezing. After the second and third day it acts less promptly, and more frequent repetitions are needed; but the author has seen very good results even much later in the trouble.

When the "cold" has more of the character of the gripe, this treatment is less efficacious, but is still often of service. In these cases he combines phenacetin, 5 to 10 grn. (0.3 to 0.6 gme.) with 10 to 20 grn. (0.6 to 1.3 gme.) of sodium bicarbonate, and gives one such powder with hot water every 2 hours continuously for a day or two. Dr. B. has had a large number of very striking instances of the benefit of this plan of treatment.

The *modus operandi* of this treatment is explained on the basis of the idea that there often exists an acid condition of the system which is sufficient to irritate the terminal endings of the nerves of the skin and mucous membranes, and thus to render them susceptible to impressions of cold by a derangement of the capillary circulation. As this acidity is neutralized, the normal conditions return.

ORIGINAL CONTRIBUTIONS

INCUBATION AND INCUBATORS

By S. MARX, M.D.

OUR only object in presenting this paper is to bring to the notice of the profession a cheap, portable incubator, so simple of construction that it can be managed by almost anybody; in fact, it practically manages itself. Incidentally, the subject of the care of the premature newborn will be dwelt on. Any progressive obstetrician who practices midwifery as it should be practiced to-day, preservative and conservative, cannot fail to make use, from time to time, of some method of preserving life in the premature baby. Midwifery is to-day, if it never was before, an exact science, even as surgery is. The day for boxes and baskets heated by hot bottles, hot sand, and what not, serving as incubators, has gone by. With an incubator, which will be presented and fully described further on, it has been our pleasure to keep these babies in a uniform temperature, and in a large majority of cases successfully. All babies cannot be saved, even with the best care and treatment. This is a truism which is indisputable; but, given a baby at or near the seventh month, even though afflicted with an hereditary taint, with proper care as to uniform heat, properly regulated food, etc., the possibility is ever present as to success, so far as the life of the child is concerned.

What the premature baby needs and must have for the maintenance of life is bodily heat. "The proportion of the surface to the cubic mass of the human body is larger in an infant than in an adult" (Jacobi). Therefore radiation—i.e., loss of heat—in the child is more rapid and more intense. Our success in raising incubator babies has been more pronounced in those cases where the induction of premature labor was artificial than in those where the premature birth was spontaneous. It is our belief that this will prove uniformly true, and for the reason that the cause originally provoking labor, and with it the premature birth, produces grave inanition, or at least a marked asthenic fetal state. In other words, specific constitutional factors attack the endometrium and the overlying decidual structures, thus provoking a decidual endometritis, which must of necessity disturb the healthy relation between mother and child; for example, syphilis. On the other hand, in case of labor provoked artificially in the presence of distinct indications—i.e., pelvic contractions, etc.—there is, as a rule, a healthy condition of the endometrium. The child, though born prematurely, is yet relatively in good condition.

Treatment of Baby.—When the baby has escaped the maternal canal, it is not to be severed from the mother until the pulsation in the cord ceases. By so waiting it gains three ounces of blood, which, when added to the circulation of the premature new-

born, is an enormous gain. So it would appear that a late separation of the child must of necessity prove deserving of recommendation in these weak and anemic babies. Even though the baby be born cyanosed and the face very black, as we have sometimes seen occur, the late separation would seem to be more preferable than the early. At term allowing a little blood to escape from the cut cord, under these conditions, has always appeared to us to be proper; but seldom if ever, unless the premature baby be well-developed, is this allowable before term. As to *resuscitation* of the premature newborn, as a preamble we make the following statement, which refers not only to the premature but also to the mature born, when asphyctic: "More newborn children are killed by active treatment than by doing nothing." The gymnastics and air-flying which some of these newly born children are compelled to undergo is nothing short of criminal. Armed expectancy and passive forethought will do more to resuscitate than insane gyrations and harsh methods. With the premature—no swinging, no spanking, no plunging alternately in hot and cold water, no unnecessary exposure to the air. When there be no efforts at crying a full hot-water bath and, while yet in the bath, the use of the Dew method or mouth to mouth insufflation should be tried. Then also give a few drops of brandy by the mouth or under the skin, or a small enema of hot water and whisky ($\frac{1}{2}$ dr. to 1 oz.). The baby, wrapped in cotton, is instantly transferred to the incubator, which in the mean time has been set in working order. Separate cotton is placed before the genitals and rectum to absorb discharges, and can so be removed without disturbing the little patient.

Food.—All these premature babies suffer from inanition to a greater or less degree. The most desperate cases only live by persistence in nourishment, by whipping up the circulation by proper food. Food, in the form of mother's milk, must be given every hour. We all err by giving too much at a time. From 2 dr. to $\frac{1}{2}$ oz. is sufficient at one time. These babies will not nurse, but must be fed by medicine-dropper or spoon. Other food, besides mother's milk, is diluted cow's milk (1 to 4 with a little lime water)—diluent being either a thin barley or oatmeal water with a pinch of salt and sugar. Brandy must be administered at the same time, the daily dose being from 1 dr. to 2 dr.

Baths.—A bath administered skillfully once a day will prove the reverse of detrimental. Not too cool, about the temperature of 90°, will keep the skin in healthy condition, and while bathing the attendant has the chance to change the cotton envelopes. The patient is lifted, cotton and all, from the incubator. When about to be immersed, the covering, which really retains the heat wonderfully well, is quickly removed and the baby is put into the bath for a few minutes, is quickly dried, the cord dressing is renewed, and it is again placed into the incubator. In the mean time, fresh cotton has been placed in the basket, and is thoroughly heated

by the hot air of the incubator. By so doing a minimum of heat is lost, and the baby suffers but little.

When, from simple weakness, the baby does not thrive in the incubator, appears weak and anemic, and the cry remains feeble and an expiratory moan is present, nothing has stood us better than hypodermics of strychnine administered every 2 to 3 hours, the dose being from $\frac{1}{100}$ to $\frac{1}{80}$ of a grain. This appears to act as a powerful stimulant not only to the heart, but also to the respiratory center. On the other hand, when the young one seems in fair condition, except for an intense cyanosis (in one case so black was the face that the husband of the woman became suspicious as to the natural color of his own baby) a vaso-motor dilator is indicated. What we can personally recommend is nitroglycerine, $\frac{1}{100}$ to $\frac{1}{1000}$ of a grain every 20 minutes, $\frac{1}{2}$ -hour or 2 hours, hypodermatically, according to the condition of the case. It is remarkable how rapidly this drug will dispel a marked cyanosis. But it must be remembered that the result is only very transient, and the drug must be persistently and frequently repeated. Besides this the regular administration of oxygen will be of immense assistance in furthering this end. It must not be constantly inhaled, since it is possible to produce a condition of hyperoxygenation, which, in a baby, with its weak and thin-walled blood-vessels, might prove indirectly disastrous by causing an effusion of blood or an apoplexy into an important organ.

In rearing a premature baby it often becomes necessary to treat the cause of its prematurity. For example, a baby born of syphilitic parents will rarely survive, even in the best incubator made, unless treated with specific remedies. It goes without saying that the best time to treat a syphilitic baby is before conception; *i.e.*, treatment directed toward curing syphilitic spermatozoa and ova. But after these weakly, syphilitic babies are born it is absolutely necessary to treat them at once. To wait for specific lesions to appear in the baby is criminal. For often, outside of its weak condition, no symptom may occur for weeks, when the snuffles, moist eruptions, etc., crop out, and then, if treatment is instituted, it may be too late. Mercury has been given in the form of bichloride baths; that is, 10 to 25 grn. of the bichloride of mercury is dissolved in the usual morning bath, and the baby kept soaked for 15 minutes. Enough absorption takes place to influence the disease. Or, calomel, gr. $\frac{1}{8}$ to $\frac{1}{16}$, is given by the mouth three times a day. And last, and apparently the best method, a hypodermic of the bichloride of mercury, grn. $\frac{1}{100}$ to $\frac{1}{80}$, once a day. This last method insures rapid absorption, saves the stomach, and does not necessitate exposure, since it can be thrown deeply into the gluteal muscles while the baby is receiving its bath. A weakly premature baby born of a tuberculous mother is best treated by daily or bi-daily inunctions with cod-liver oil, and swathed in cotton soaked with the same. Mothers suffering from

malaria may produce offsprings which, from their cachexia, would probably mean an hereditary infection, as evinced by marasmus, the presence of pigment granules in the blood, and a large spleen. Such cases have been reported. Here the indication would be the use of quinine, preferably hypodermatically.

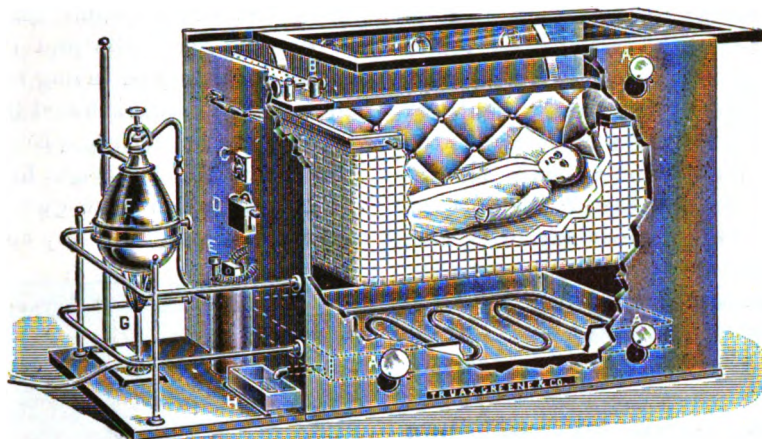
It is not every premature baby which must be incubated, since we have all seen infants apparently six weeks premature whose condition would do credit to one born mature; and still there are those born at term that weigh little, whose emaciated and feeble frames belie their age. They are those which, from faulty nutrition, need uniformity of temperature and environment. Such are mature babies which do best in an incubator.

How long should a baby remain in the incubator? This is a difficult question to answer. The physician must be guided by the general condition. Generally speaking, when the heart action remains uniformly normal, when cyanosis does not occur when the baby is outside of the incubator, the cry be vigorous, the eyes wide awake, the limbs in active motion, and the recessions of the diaphragmatic region (peripulmonary groove) are not present, then is the child ready to live outside of the incubator.

The Incubator.—We are indebted to Messrs. CHAS. TRUAX, GREENE & CO., of Chicago, Ill., who have perfected the instrument, and who are capable of supplying the demand. This device consists of an outer case made of oak, 28 in. long, 13½ in. wide, and 22½ in. high, all inside measurements. In the bottom of this case is a metal pan, filled with sand, in which a steam pipe (I) is coiled; through this steam circulates for the purpose of producing the desired temperature. The sand is present for the purpose of preventing rapid fluctuations of temperature. As it absorbs and parts with heat slowly, sudden changes are prevented. The coiled pipe is connected with a copper (F) steam generator, capacity half a gallon, outside of the case, but adjoining it, on a base which is an extension of the bottom of the oaken case. Heat is to be applied to the generator by means of either (G) a gas or alcohol burner, as may be preferred. The steam thus generated circulates through the coiled pipe, thus heating the air contained in the oaken case. Numerous trials made show that the box can be heated to a temperature of 110° in about half an hour. Condensation in the pipe is received by an exhaust in the pan (H), arranged for the purpose. By this means it becomes possible to gauge the amount of water yet remaining in the generator by deducting the amount of water received in this pan. As a means of further modifying the temperature, the two longer sides of the case are perforated by three openings (A, A, A,) 1¼ in. in diameter at top and bottom. These openings are provided with circular metal shutters, as shown in the plate. By opening and closing one or more of these shutters, the ingress and egress of air is con-

trolled, and the temperature of the case is correspondingly modified. When the instrument is in working order, the ventilation is so beautifully arranged that, when a lighted match is held at the lower openings, the flame is drawn *into* the box; when held before the upper holes the flame is blown

of air in and around the basket. The outer case is fitted with a sliding glass lid which provides that the patient shall be constantly under inspection and control, and shall receive prompt attention when needed. The arrangements for controlling the temperature in the box are not automatic (strictly



out. This shows a perfect current of air. Cold air goes *into* the box from below; hot air passes *out* at the top. An alarm (D) operated by means of a (B) thermostat is part of the apparatus, and is designed to warn the attendant when either the maximum or minimum of temperature has been reached. This thermostat consists of two pieces of diverse material having different degrees of expansion and contraction under heat and cold. As the temperature in the cases rises, the thermostat bends over toward an electric contact, which is closed when the maximum is reached. With the descent of the temperature it bends in the opposite direction, and the circuit is likewise closed when the minimum is reached; the closing of the circuit causing the ringing of a bell (D) to attract the attention of the attendant, whose duty it then is to either remove the heater under the steam generator or to return it according as the temperature is either too high or too low. The current is generated in a single dry chloride of silver cell (E). A thermometer is, of course, present to indicate temperatures. The ringing of the bell can be instantly checked by turning the switch-board (C). The thermostat is so constructed that the desired degrees of temperature both for maximum and minimum can be fixed at the pleasure of the physician. The range of excursion allowed is from 90° F. to 100° F., neither lower nor higher; the average temperature desired in the incubator is about 96° F., reasoning from theoretical deductions and practical experience. In the apparatus, as now made and ready for use, the manufacturers have adjusted the thermostat to this range, but, as stated, the degree of variation can be made less or greater, if desired, by simply turning a thumb-screw. The infant rests in a well-padded basket made of wire gauze, suspended near the top of the outer case. The dimensions of this basket are sufficiently less than the oaken case to permit of its being lifted in and out easily and quickly, and for allowing free circulation

speaking), as it is questionable in the minds of many physicians whether it is wise that they should be. Automatic devices, while very convenient, are liable to derangement, and the attendant is relieved of the necessity of constant vigilance, the neglect of which increases liability to fatal results.

New York; 947 Madison avenue.

A SUGGESTION AS TO THE CAUSATION OF NASAL CATARRH*

HENRY J. MULFORD, M.D.

Clinical Instructor in Diseases of Nose and Throat, Medical Department,
University of Buffalo

I BELIEVE that chronic nasal catarrh has its origin because of a diathesis; that the catarrh is an expression of such diathesis; and that it would not assume a chronic course if the diathesis were not present. I have yet to see a case of chronic rhinitis without an underlying constitutional fault. The normal person does not have catarrh. He may have an acute rhinitis occasionally, but this does not assume a chronic course unless there is an underlying diathesis. It does not matter if he lives in a "catarrhal" region or not. He is safe in any climate if his nutrition be perfect.

It is probable that a diathesis exists because of some fault in the process of internal nutrition. We do not know much in regard to the detail of internal nutrition. It is roughly, an oxidation, the proper accomplishment of which depends upon four conditions: the proper conversion of food in the digestive tract; a sufficient supply of oxygen; alkalinity of the blood; prompt elimination of waste. The circulation is so intimately connected with all of these that an error in any part quickly affects the blood. The blood is the carrier of nutritive material from the digestive tract to the cell, and conveys also the soluble waste from the cell to the kidney.

*Read before the Surgical Section, Buffalo Academy of Medicine, December 3, 1895.

Any fault within the digestive tract, or any incomplete chemistry within the cell, and there is thrown into the circulation foreign matter, which, being constantly produced, makes of the blood a constant irritant. Thus we can appreciate why any organ may respond to a diathesis; and, more particularly, why the more important organs are the first to reveal its presence. The greater the importance of an organ the more delicate its structure and the greater its blood supply. This is demonstrated within the nose. The erectile tissue of the nasal respiratory tract is of as delicate a structure as is any of the body tissues. I need not detain you with the complete anatomy of the membranes of the internal nose; a part will do for our present purpose. The middle layer of the erectile tissue is an abundant venous plexus with walls of connective tissue and unstriated muscle fibre. From this plexus venous loops extend into the superior layer, and also into the periosteal layer. The superior layer, or mucous membrane proper, contains the gland structures, and presents externally a ciliated epithelium. In this arrangement there is much to suggest thought. Let me emphasize it: The mucous membrane, containing the delicate structures, rests upon, is in fact almost surrounded by, venous blood. This fluid being but a carrier of waste cannot support life. It would seem, therefore, that even in its normal condition its continued presence in large quantity would be undesirable.

I am of the opinion that the most important condition necessary to proper cell nutrition is alkalinity of the blood. The cell is surrounded by an alkaline plasma derived from the blood. Oxidation does not occur in an acid reaction. If the alkalinity be reduced gradually, the combinations with the oxygen are made less and less readily, until, with complete acidity, there is cessation of function and death occurs. As the alkalinity is reduced, there appear in the venous blood products of this suboxidation. These are usually eliminated by the kidneys, but if for any reason the kidneys act imperfectly, the venous fluid becomes more and more an irritant.

Suppose we have a blood in which the reaction is but faintly alkaline. That alone is irritation enough for delicate tissues; but suppose, as a result of this, there is added irritation from the imperfect tissue chemistry. There must occur some demonstration of this at some point. The ideal location is found within the nose. The erectile tissue, soaked in venous blood, is the first to respond. The delicate structures of its uppermost layer endeavor to throw out the irritating material. There is free discharge from the nose, with, as the condition ages, more or less nasal occlusion. That is the beginning of nasal catarrh. The source of the irritation being constant, the membrane is urged to greater and greater activity. Nature endeavors to correct the fault, but only aggravates the distemper, until the catarrh has become more than a beginning. It is now chronic, with all the discomfort and danger of that condition.

Buffalo, N. Y.; 466 Franklin street.

RED BONE MARROW IN THE TREATMENT OF ANEMIA

By ROBERT L. WATKINS, M.D.

THE interest attached to the question of the value of bone marrow in the treatment of anemia leads me to report the following case:

Miss ESTHER C., age 16 years, came to Prof. CHARLES L. DANA's clinic for nervous diseases at the Post-graduate Hospital on January 9, 1896. She gave a history of having been ill for more than two years. She had suffered from weakness, loss of appetite, and headaches. During the past four or five months she had slight fainting spells, and had two attacks which were quite severe. There was no history of aura or of any convulsive movements.

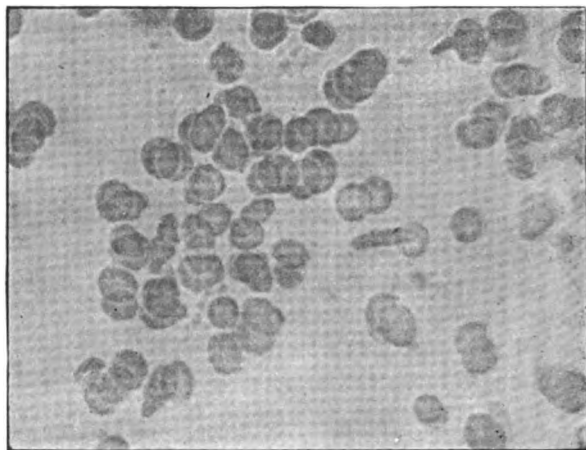


FIG. 1.

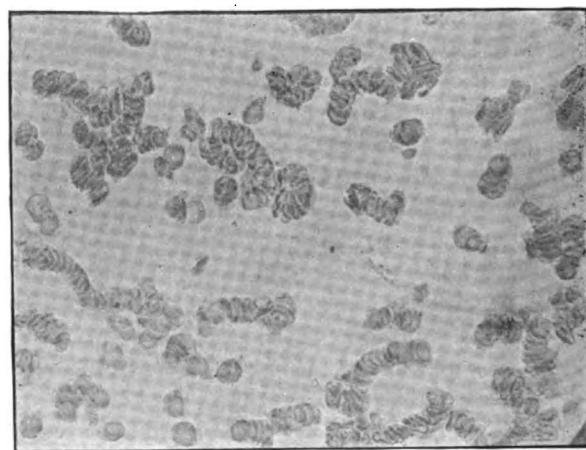


FIG. 2.

Digestion was often disturbed, and she had a bad taste in the mouth mornings, and a tendency to constipation. Her headache was situated in the brow and running up to vertex. She also had pains in the back. She had never menstruated. She had cold extremities and evidences of weak circulation. Examination showed no objective signs of disease, except a most pronounced and striking anemia. The case was looked upon as one of the ordinary forms of chlorosis in girls. She had, however, been treated for two years, as stated by herself and mother, with large doses of iron, including Blaud's pills. She also had arsenic and tonics of all kinds. The fact that she had not improved under iron and

arsenic, and the ordinary measures directed toward this condition, suggested the possibility that bone marrow was indicated. She was, therefore, placed upon 2 dr. of carnogen, a uniform preparation of red bone marrow, three times a day, with absolutely no other treatment.

The patient rapidly improved, and a month after treatment showed decided decrease in pallor; there was very little headache, and she had no more fainting spells. Examinations of the blood, including photographs, were made. The first photograph, taken before treatment, showed a marked deficiency in red corpuscles, and the poikilocytes were very pronounced. The second one, taken a month later, showed a large increase in the red corpuscles; these being very much improved in appearance, as well as in numbers. They had more tone, were more perfect in form, and were arranged in rouleaux.

New York City; 320 W. 145th street.

APPENDICITIS AS IT IS SEEN BY A GENERAL PRACTITIONER

By D. WHITE, M.D.

SO much has been written on this subject during the past few years that anything more may seem superfluous. But when I remember that I have practiced medicine for 35 years, and did not make a diagnosis of the disease until six years ago; and when I hear good physicians of many years' practice even now say they never have had a case; and especially when I see a case of the disease die in my own neighborhood, which I know could have been saved by an operation, and hear the attending physician state that it was a case of idiopathic peritonitis or enteritis,—then the thought comes to me that it may be there are a great many physicians even yet who fail to diagnosticate the disease. The one fact that the pain does not generally localize itself in from twelve to twenty-four hours after the beginning of the attack is very likely to mislead the attending physician. When called to a patient who has had a sudden attack of pain in the abdomen, with or without vomiting, I always examine the painful region carefully, but generally find the tenderness distributed quite evenly over the whole abdomen. Quite likely it is greatest in the epigastric region.

If it is a case of appendicitis, I will find on my second visit, after having applied hot fomentations or a meal poultice, that the general tenderness has disappeared, and a very tender spot will be found in the right iliac region over the site of the appendix. When I find this in connection with the other symptoms of appendicitis I always send for a surgeon at once, because I have found that the course of the disease is so uncertain that I never can tell whether it is going to develop abscess, cause troublesome adhesions, run into a chronic case, or get well. Therefore, I have learned to regard it as a surgical disease first, last, and always. I believe a much larger per cent. of lives can be saved by operating early in all cases than by any other mode of treat-

ment. Certainly no harm is anticipated from the removal of the infected appendix, and the patient is for ever assured of immunity from a recurrence. During the past six years there have occurred in my private practice 24 cases in which operations have been performed. Out of this number two have died. The first was operated upon simply by opening the abscess without removing the appendix. The patient died on the fifth day from septic peritonitis.

This was my first case, and probably might have been saved if surgeons had understood the treatment as well then as they do now.

The second death was caused by post-operative intestinal obstruction and acute peritonitis which was present at time of operation.

The appendix was removed in all but two cases, the one mentioned and one in which it had sloughed. One case had suppurating peritonitis. Eight were localized pus cases. Seven were perforated, or had sloughing of mucous coats. Eight were operated upon before pus or peritonitis appeared. Six were chronic cases with old adhesions. One case had three calculi the size of peas in the appendix. One had a cherry-pit, and many cases had hardened fecal concretions. Seven cases were operated upon through an inch and a half incision.

All the pus cases, except the first one that died, were treated with peroxide of hydrogen and local saline solution flushing, and with a small drainage wick protected with gutta percha. No counter-openings or gauze packing were employed. The whole abdominal cavity was flushed out with peroxide of hydrogen and saline solution in the general suppurative peritonitis case (which recovered). There are no post-operative hernias among the cases. This record will show that cases of appendicitis may recover when the operation is delayed till the disease has reached an advanced stage and become very complicated. But it must not be forgotten that the danger is much greater; that much more time is required, and much more suffering experienced by the patient if operation is delayed too long. The last two cases which I attended were Cornell University students. They were both operated upon on the same day, and both resumed their University work within three weeks. A similar record is true of all my cases which were operated upon early.

Ithaca, N. Y.

Tannoform, a Siccative Antiseptic.—W. M. FRANK (*Deut. Med.-Ztg.*, 1895, p. 1169)

Tannoform, $C_{20}H_{20}O_{18}$, is described as a condensation product of gallotannic acid and formaldehyd. It occurs as a loose, reddish-white powder, insoluble in water, but soluble in ammonia water and solution of soda or of sodium carbonate; it melts with decomposition at $230^{\circ}C$.

According to a number of reports, tannoform is an excellent and perfectly innocuous remedy against decubitus and hyperidrosis in all their forms. In soft chancre a mixture of 1 part of tannoform with 4 parts of powdered starch does good service.

CONSERVATIVE SURGERY UPON THE UTERUS AND ITS ANNEXA THROUGH THE VAGINAL ROUTE*

By **HIRAM N. VINEBERG, M.D.**

Attending Gynecologist St. Mark's Hospital, Mount Sinai Hospital Dispensary, and Montefiore Home for Chronic Invalids

THE past decade has witnessed many important changes in the pathology and treatment of diseases peculiar to the female sex. It is some ten years or more since the generic terms "cellulitis" and "thickening of the broad ligaments" had to give way to a more definite and accurate pathology. Gynecologists at this period began to learn that most of the so-called diseases of women had to be sought in conditions above the pelvic diaphragm, and one began to hear more about salpingitis, salpingo-oöphritis, pyosalpinx, and pelvic peritonitis. With this change in the views of the pathology came a corresponding change in treatment. Hot douches, iodine paintings of the vaginal vault, and glycerin tampons were replaced by a more radical method of procedure. Laparotomies, or, to use the more modern term, "celiotomies," for the removal of diseased tubes and ovaries, became the vogue. Many here to-night may probably think the vogue was carried too far. The operators themselves, after a considerable experience, grew dissatisfied with their results.

This dissatisfaction arose from the circumstance that although tubes and ovaries diseased to such an extent as to explain the former symptoms had been removed, the patients were not always relieved, but many of them went on suffering to a greater or less degree as they did before operative interference had been instituted. Then it was thought that the continuance of the symptoms were due to the fact that the uterus had been left behind. Accordingly, it has been the custom with many operators for the past couple of years to excise the uterus also when both appendages are hopelessly diseased and have to be ablated. This practice has in a measure been attended with better results than when the appendages alone were removed. Still, as experience accumulated, it was learned that even when the uterus and appendages were cut away, some of the patients were not cured of their former pelvic pains and nervous disturbances. The thought then forced itself upon the workers in this field that the failure to cure depended upon the extent of the diseased tissues, and not upon any shortcomings of the operation. Remove as much of the pelvic contents as one could, there always necessarily remained some tissue behind which had been pathologically changed by the preceding diseased processes. There must be some peritoneum, cellular, and lymph tissues, blood-vessels and nerves left after the most radical operation, and these being diseased are sufficient to keep up a certain degree of ill being. Already at an early stage of operative gynecology the thoughtful operators bent their energies toward conserving as much as possible the functional organs of women, and there

arose what is commonly known as "conservative pelvic surgery."

This form of surgery must be kept distinct from another form which may be termed "palliative," and which has been practiced to a greater or less extent for a number of years. The latter or palliative consisted in opening tubal or pelvic pus collections through the vagina. This, as a rule, merely tided the patient over her present difficulties, and a secondary radical operation was usually necessary sooner or later. It is a procedure, however, not to be despised, and probably has been the means of saving many a life which would have been sacrificed had the more serious operation been done in the first instance. The great barrier to the progress of conservative pelvic surgery has been that it necessitated making an incision through the abdominal walls which justly carries some dread with it to the lay, and, I may add, medical mind. Opening the peritoneum through the abdominal parietes is always attended with the immediate risk of infection and the remote risks of stitch abscesses and ventral hernia. A ventral scar is always an unsightly and at times an unpleasant possession. These circumstances and the well-known and unfortunately unavoidable sufferings during the first few days following an abdominal celiotomy has deterred medical men from advising, and patients from submitting, to an operation until the disease had made considerable ravages. Accordingly, it was not often that the operator when he opened the abdomen was so fortunate as to meet with conditions favorable for conservative work, or when he attempted it that he could expect gratifying results from it. Still, it is not to be gainsaid that very brilliant results have been achieved in the past by the method in question.

Conservative pelvic surgery, to my mind, has received a strong impetus from the circumstance that it can be carried out through a vaginal incision which, when done under proper precautions by one who has some experience with the method, is fraught with scarcely greater risk or suffering to the patient than a curettage or an amputation of the cervix. When this fact becomes fully established, as I think it will in the near future, we shall make a long stride toward preserving the generative organs of woman. A patient with pelvic peritonitis or with diseased tube and ovary will not be tinkered with for years until her pelvic organs are far advanced in disease before submitting to surgical interference. We shall have reached a point at which we shall do what I might designate as "prophylactic pelvic surgery."

To make my meaning more clear: A woman has an attack of acute salpingitis—a condition, by the way, to which sufficient attention has not been bestowed by gynecologists, and which bears many points of resemblance to acute appendicitis. She is treated on approved general principles—rest in bed, ice applications, anodynes, etc. She makes an apparently good recovery. But ever after (to be sure not in every case, but in a large percentage) every now and then there are attacks of pain on the af-

* Read before the Medical Society, County of New York, Feb. 24, 1896.

affected side showing fresh attacks of local peritonitis. This is allowed to go on until the ovary and tube are matted together into a conglomerate mass, and until probably the appendage on the opposite side becomes involved in the diseased process. If in these cases, after the subsidence of the acute attack, there is manifested a tendency to recurrent attacks, a vaginal incision be made, the affected tube and ovary delivered through the incision and treated on conservative principles, the woman would not only be saved a great deal of physical suffering, but would be saved also the tube and ovary on the other side, and perhaps a portion of the tube and ovary on the affected side. The brief history of the following case, representative of several in my practice during the past eighteen months, has a direct bearing upon what I have just said.

Cases.—CASE I. Mrs. G. first consulted me on December 10, 1893, for a profuse leucorrhea and painful and frequent micturition, from which she had been suffering for three weeks. She had had a child 13 months before, and was now a couple of weeks over her time. I found the uterus enlarged to the size of the gravid organ at six weeks, the cervix patulous with both lips in a high degree of erosion, and copious, thick purulent matter discharging from the os. There was a profuse discharge of pus from the urethra. I had therefore to deal with an acute attack of gonorrheal endometritis in an organ which was probably pregnant and with acute urethritis. Under suitable treatment the urethritis readily subsided, but not so the endometritis. The disease was making rapid progress, extending to the right appendage as evidenced by pain, tenderness, and tumefaction. She began now to have in addition uterine colic and hemorrhage. Finding my palliative treatment ineffectual, I did a thorough curettage under narcosis. Nothing, however, was removed that had the appearance of the products of conception. The uterine cavity was freely irrigated and packed with iodoform gauze. Three days later the patient had a severe chill and some temperature, the latter continuing for a few days. The mass on the right side had now increased and corresponded in size to that of a mandarin orange. She was kept in bed for eight weeks, treated with hot douches, Preissnitz compresses, etc., with the hope of dissipating the swelling. This did diminish in size, and when she got up it was about half as large as it had been. For the next month there was entire freedom from pain. Then she had a recurrence of the pain in the right groin, and on examination the tumor was found again to have increased in size, and was quite tender. During the next three months she was faithfully treated with electricity, ichthyol tampons, hot douches, and ichthyol and bichloride of mercury internally. There was some improvement manifested, but every now and then after that there would be a recurrence of the pain, and the swelling on the right side would vary in size from time to time. About a year later she commenced to experience some pain also in the

left groin, and the left tube was found very sensitive, though not appreciably thickened. Under my advice she consulted two other specialists, both of whom advised surgical interference. Accordingly, on June 6, 1895, at St. Elizabeth Hospital, I performed vaginal section, first delivering the left appendage. The ovary contained a couple of cysts, which were punctured. The peritoneal covering of the tube was considerably injected, but the fimbriæ were distinct and apparently normal. Both tube and ovary were then returned within the peritoneal cavity. The right appendage was delivered with considerable difficulty, owing to the presence of dense and rather extensive adhesions. Tube and ovary ablated in the usual way. On examination afterward, the tube was found to be the thickness of my thumb, club-shaped, and filled with thick pus, the ovary completely disorganized by cystic degeneration. The patient made an uneventful recovery, and left the hospital June 23, 17 days after the operation. She has remained perfectly well ever since.

There is no doubt in my mind that, had I waited much longer in the foregoing case, the left appendage would also have become irretrievably damaged.

The treatment followed in the case affords an illustration of the proper course, in my opinion, to be followed in similar conditions, with this modification, however, that in the future I would not wait quite so long before resorting to vaginal section. If curetting, a prolonged stay in bed followed by faithful local and general treatment for months, fail to effect a cure there is no sense or advantage in dallying any further. I do not wish to be misunderstood. I do not advise curettage in every case of gonorrheal endometritis, or to speak more accurately, endocervicitis. It is only when the affection has become chronic, or has extended to the cavity of the body that the procedure to my mind is indicated.

The next case I will relate is illustrative of another fairly large class of cases in which, by timely surgical interference, I was enabled to abridge diseased processes, and thus exercise a prophylactic effect.

CASE II. Miss S., aged 22, was kindly referred to me by her physician, Dr. LICHTSCHN, on January 3, 1895. She was a working-girl, but was unable to fill her position for some months on account of her illness. This consisted chiefly of frequent attacks of migraine, attended with nausea and vomiting. The attacks latterly would recur as often as every 5 or 8 days, and would confine her to bed for a day or two at each time. In addition she complained of constant backache, a tired feeling, inability to exert herself, and a fullness after eating. Thinking that her trouble was largely hysterical, her physician, an expert hypnotist, had tried hypnotism with only temporary benefit. He had detected a retroflexion of the uterus and had employed a pessary to correct the malposition. But this failed of its purpose, and the uterus would be found in backward displacement even while the pessary was *in situ*. Latterly, the wearing

of the pessary was attended with great discomfort and pain.

On examination, I found a large and soft uterus lying in the third degree of retroflexion and first degree of descensus. Both ovaries were slightly enlarged, and were lying prolapsed in Douglas *cul-de-sac*. This condition explained the cause of pain and discomfort from wearing the pessary. On February 11, 1895, at the Post-graduate Hospital, I did a vaginal section. Both ovaries contained a number of small cysts; one of these, larger than the rest, was excised and the wound in ovaries sutured with fine catgut. The other cysts were simply punctured. Both ovaries and tubes were returned into the peritoneal cavity. The uterus was sutured in the forward position to the anterior vaginal wall, a little below the urethral meatus, thus doing a vaginal fixation. The patient made a good recovery, the temperature only once reaching 100°. She left the hospital March 2, 19 days after the operation. When seen six months later, she seemed like a different person. She had had no attack of migraine, felt perfectly well, was enabled to follow her vocation, and had acquired good color and gained in weight. Prior to the operation, her migraine was particularly severe during the menstrual period. Since then her periods were painless, and only on one occasion did she have slight headache.

It is safe to predict that had this patient been allowed to go on for a year or two longer, both appendages would have become so disorganized and adherent to the posterior *cul-de-sac* that a conservative operation would probably have been impracticable.

A third class of cases in which conservative surgery through the vagina finds a suitable field comprises small subserous fibroids attached to the uterus, which produce symptoms, or manifest a disposition to rapid growth after a period of quiescence. In order not to take up too much of your time, I will, as in the other instances, cite only one case in illustration.

CASE III. Mrs. S., a widow, aged 45, came under my observation, April, 1895. She complained of pain across the hypogastrium, frequent backache, menses regular, but rather more profuse than formerly. I found a small fibroid the size of a pigeon's egg attached to the anterior wall of the body of the uterus. In December she consulted me in great anxiety on account of a swelling in the left breast, which had given her some pain for a few weeks. I detected a cystic tumor in the breast about the size of a hen's egg with ill-defined boundaries. For the past couple of months menstruation had been irregular, and the hypogastric pain had been more severe. A vaginal examination showed that the subperitoneal fibroid had grown about the size of an English walnut. On December 11 I performed a double operation, first excising the tumor in the breast, which proved to be made up of one large cyst and a great number of small cysts; then doing the vaginal section and removing the uterine

subserous fibroid. This proved to be more difficult than I had anticipated, owing to the very dense adhesions of the bladder and peritoneum to the growth. After enucleating it, I sewed up the defect in the uterine wall with continuous catgut and shut off the peritoneal cavity by vagino-fixation of the uterus, which had been retrodisplaced. On account of the extent of the adhesions I thought it safer in this instance to put in a small iodoform-gauze drain reaching to the uterine wound and passing out through the center of the vaginal incision. The patient made a smooth recovery from both operations, and was able to leave the private hospital in two weeks.

In this case, though the uterine fibroid was causing some discomfort, it was thought best to leave it alone in the hope that with the onset of the menopause, which might be soon expected, it would shrivel and disappear. But exactly the opposite happened. Whether the breast tumor had anything to do with its renewed activity it is difficult to determine. However, it was fortunate that the uterine growth could have been removed by a safe operation at the same sitting and under one anesthesia. I should certainly have hesitated to have submitted the woman to an abdominal celiotomy for its removal on the top of an operation for the amputation of two-thirds of the breast.

I have, in all, performed 42 vaginal sections for conservative surgery upon the pelvic organs. The cases in which both appendages were found hopelessly diseased, necessitating their ablation, and in which the uterus was also excised, are not included in this category. In 32 cases there was, in addition to other pathological lesions, a marked backward displacement of the uterus. By this I mean that the fundus lay below the promontory of the sacrum. In the majority of the cases the retroversion or flexion was complete, the fundus lying at a lower level than that of the cervix.

In all of these 32 cases the uterus was sutured to the anterior vaginal wall, thus doing a vaginal fixation.

It falls to my lot to report the first fatal result in vaginal celiotomy, or, as it has been termed by A. MARTIN, "anterior colpotomy, for conservative surgery." It occurred on the eighth day after operation from sepsis, starting in the vaginal wound in a case at the Post-graduate Hospital. The left ovary and tube were diseased, and consequently ablated. While talking to the class about the case the assistant surgeon attended to the scrubbing and washing of the vagina, which he did imperfectly, as I afterward learned. The infection remained localized to the uterus and pelvic peritoneum for the first five days; general peritonitis developed only on the sixth day, there being absolutely no distension, the patient having had daily stools up to this time. At any period prior to this the woman's life could doubtless have been saved by a vaginal hysterectomy, which I would have carried out could I have obtained the husband's consent. Ever since this unfortunate and avoidable experience I scrub and

wash the vagina myself or personally supervise it. A number of my cases have been done in tenement houses, and with few exceptions the patients have made an afebrile and uneventful recovery.

Mortality.—The operation has thus far a mortality as low as any of the minor operations upon the female generative organs.

A. MARTIN¹ has operated on 149 cases without a death. Prof. AMAN² has had 43 cases, MACKENRODT 30 cases, DÜHRSEN several (the exact number I don't know) without a death.—ZWEIFEL reports 1 death in 151 operations (0.66%) for prolapsus of the vaginal walls, and 2 fatal cases from sepsis in 383 curettages (0.52%) (*Vorles. über klin. Gynaek.*, 1892).

	Cases	Deaths
A. Martin	149	0
Prof. Aman	43	0
MacKenrodt	30	0
Vineberg	42	1
	264	1
		— 0.37%

Procedure.—I have up to the present time followed one method of entering the peritoneal cavity through the vagina. I make a longitudinal incision in the anterior vaginal wall, reaching from near the urethral meatus to the vaginal attachment of the cervix. The two vaginal flaps thus created are dissected off on either side from the underlying bladder. The flaps are then held asunder near the cervix, and a semi-lunar incision is made down upon the cervical tissue, thus severing the septum binding the bladder to the cervix. The bladder is then pushed up with the palmar surface of the index finger until it is felt that it is entirely out of the way. The next step consists in opening the peritoneum. This I have found of easier accomplishment when I have first passed a traction suture through the peritoneum, and embracing some of the uterine wall just above the internal os. By this means the uterus can be slightly anteverted, and the peritoneum can then be readily slit open with scissors at the most favorable site. If the attempt be made to open the peritoneum before anteverting the uterus the section is usually made too low down, where the peritoneum is closely adherent to the uterine tissue. In some cases where the peritoneum is abnormally thin, it is torn through in pushing up the bladder.

After opening the peritoneum a second traction suture, and sometimes a third one is passed, one above the other, directly into the anterior uterine wall. With these the fundus is delivered entire through the vaginal incision, and presents at the vulval orifice. If the appendages be not firmly adherent they are now easily delivered, one after the other, by hooking the index and middle fingers around the ovary and pulling it down. The tube usually comes along with the ovary. Once delivered the tube and ovary are as easy of access for any delicate plastic surgery as they would be through an abdominal incision. When adhesions exist to any great extent the delivery of the ap-

pendages is attended with considerable difficulty—much greater than that encountered by the abdominal method; for one has to work with two fingers in the former, while in the latter the whole hand may be employed. In three cases when the adhesions were very firm and extensive, I had to abandon the vaginal route and complete the operation from above. The patients made as good a recovery from the abdominal celiotomies, as they could possibly have done if the attempt through the vagina had not been made. These cases occurred in my earlier work; and probably were they encountered now, with increased experience in that direction, they could be successfully operated upon through the vagina. Still, where universal and dense adhesions are anticipated, it is a wise precaution to have the patient prepared also for abdominal work, so that if it be necessary one can expeditiously retreat along the better-known and more practiced route³.

In none of my cases was there any trouble from subsequent hemorrhage. This I attribute, in a measure, to my not relying upon ligaturing the appendage to be removed in the usual way. If after careful inspection it is found to be hopelessly diseased, the infundibulo-pelvic ligament is grasped by a clamp. Another clamp is applied to the broad ligament near the horn of the uterus, and the tube and ovary are rapidly cut away. Any bleeding vessels between the two clamps are caught by long artery forceps. Then, with a curved needle, armed with a medium-sized catgut, a suture is carried through the infundibulo-pelvic ligament and tied. The clamp is now removed, the suture is carried in a continuous way, making a loop at the points of the bleeding vessels until the whole cut surface of the broad ligament is included and the horn of the uterus is reached, when the suture is again firmly tied. In other words, the wound in the broad ligament is closed by a continuous catgut suture. The occurrence of hemorrhage is impossible when this method is followed. I first saw it practiced by Dr. EDEBOHLS in abdominal work, and have found it exceedingly useful in vaginal salpingo-oöphorectomy when the tying of a ligature is attended with some inconvenience. In some cases, where the adhesions have been numerous and several raw areas have been created by their removal, I have found it advantageous to carry a small gauze drain through the lower part of the vaginal incision down to the bottom of the vesico-uterine space. This is removed at the end of three or four days. It is wise to keep patients in bed for at least two weeks, though they usually feel well enough to be up and about at the end of a week.

One of my cases, with a perfectly smooth and a febrile record during the first eight days, was

¹ P. WENDELER: *Berlin. klin. Woch.*, 1896, No 1.

² M. MADLEUR: *Münch. med. Woch.*, 1895, No. 45.

³ The nonobservance of this maxim, attributed to a renowned general, was, in my opinion, the cause of death from hemorrhage in two cases of vaginal hysterectomy that I witnessed during the past year. The cases occurred in the hands of two expert and experienced operators, and it was my conviction at the time that a fatal issue could have been avoided, at least in one of the cases, if the operator had gone in from above, found the bleeding point and arrested it by suitable means.

allowed up on the ninth day. Immediately afterward she was seized with pain in the side on which a salpingo-oöphorectomy had been done. She was put back to bed. A small exudate developed, which however completely disappeared in the course of a week's stay in bed, and the patient has remained well since. I desire to lay special stress upon this point, for one occasionally hears that a patient after a vaginal section was allowed to leave the hospital on the ninth or tenth day.

While this may be done with impunity in some cases, it is my firm conviction that the general adoption of such a course would not infrequently be followed by injurious results, which would tend to throw discredit upon the operation. Even with a stay of two weeks in bed, the convalescence is considerably shorter than after the most normal course of an abdominal section. The patient has not gone through the same ordeal, and is much stronger on getting up than she is in the latter instance. Besides, the conditions already hinted at in the course of this paper, conservative vaginal section has been resorted to in cases of ectopic gestation. Here, however, unless the site of the extra uterine sac is favorable, I prefer the abdominal route.

My preference is not due to the fear of the occurrence of uncontrollable hemorrhage, though that is a contingency to bear in mind, but to the circumstance that the uterus undergoes sympathetic changes and becomes soft and friable. In this altered state it is easily torn with the volsellæ or traction sutures; and in order to do safe surgery upon the pelvic contents through the vagina the body of the uterus must be either delivered or drawn well into the incision. In one case, to my knowledge, where this precaution had not been taken, the operator in applying the clamps to the pedicle of the sac included a loop of the intestines. The accident was fortunately discovered in good time, through another accident, which necessitated the opening of the abdomen.

For the reason just stated—friability of the uterine tissues—it is not wise to undertake to do conservative vaginal section shortly after the puerperal process. In a case reported at the Brussels Gynecological Society, the operation was attempted two months after parturition, and the uterus was so lacerated by the attempt at anteverting it that it had to be amputated. I have myself performed the operation in a couple of cases as early as the fourth and sixth months respectively following the puerperium. No ill results followed, but I was extremely careful with my manipulations. It is safer to wait until nine or twelve months have elapsed. To briefly sum up the points I have endeavored to make in this paper:

In order to obtain good results with pelvic conservative surgery resort must be had to it at a comparatively early period, before all the pelvic contents have become completely disorganized by the diseased process. This does not preclude first a faithfully and intelligently carried out course of pal-

liative treatment, which in a fair percentage of cases may also prove to be curative. The ability to do conservative surgery upon the pelvic organs through the vagina, with the same precision and accuracy as it can be done through an abdominal incision, forms one of the great triumphs of modern gynecology. Some may be inclined to dispute the adjective "modern," as small ovarian cysts and probably small subserous fibroids have been successfully removed through this route some years ago. But the method of doing plastic work upon the tubes and ovaries and correcting the malposition of the uterus through an incision in the anterior vaginal wall is of recent birth. The character of the incision is not an indifferent matter. A longitudinal incision in the anterior vaginal wall has many advantages over a transverse incision either in the anterior or posterior fornix, because:

1. It affords more room.
2. It cannot wound the ureters or the rectum.
3. It is attended with less hemorrhage.
4. It affords the best method of doing a vaginal fixation when there is an accompanying backward displacement of the uterus.

New York city; 127 East Sixty-first street.

[For discussion see p. 336.]

Salivary Calculus.—LINDEMANN (*Deut. med. Wochenschr.*, 1895, No. 41, p. 683)

Dr. LINDEMANN states that 196 cases of this condition have been reported. His case, a woman, gave the following history: Her tongue was swollen throughout the left half, showing marked indentation of the adjacent teeth; the left lingual glands were likewise much swollen, of deep red coloration, and covered with an extensive network of greatly enlarged and tortuous veins. To the touch the tumor felt cartilaginous. The lymphatics of the lower jaw were enlarged and the surrounding cellular tissue infiltrated and firm; the skin was reddened.

The patient suffered with frequent headaches and sleeplessness; also from thirst, anorexia, and increasing weakness. The temperature was at all times normal. The condition dated back eight months, gradually increasing, giving rise to great pain.

Upon inserting an aspirating needle into a softened caruncula sublingualis, a hard body was discovered. This after-excision proved to be a calculus weighing 3.5 gm. and measured 3 ctm. by 1 ctm. The incision healed kindly, and in a few days the tongue, glands, and face resumed their natural condition.

An analysis of the calculus resulted in finding:

Water	7.08 per cent.
CaO	46.61 per cent.
MgO	0.79 per cent.
P ₂ O ₅	35.86 per cent.
CO ₂	11.49 per cent.
Cl	trace.
Fl	trace.
Organic matter, etc.	5.21 per cent.

This condition is at times mistaken for a theroma, lipoma, ranula, or malignant tumors. There is no positive etiological factor present. The most probable ones being: (1) Accidental invasion of a foreign body; (2) introduction of a particular of tartar; and (3) inflammatory conditions, the last being the most plausible one. KLEBS would also make the leptothrix buccalis a causative agent.

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THE BULLETIN SPECIAL CORRESPONDENCE.—Beginning with the current issue, the BULLETIN presents its readers with the news from the chief cities in this country. Thus the BULLETIN is in the position of representing fairly the professional and the lay sentiment of various educational centers. Our letters will contain not alone items of interest to the medical profession, such as the doings of the societies and the opinions of leading medical men in reference to questions which necessarily interest the country at large, but the aim will be to keep its readers informed in regard to legislation affecting the practice of medicine, sanitation, and hygiene.

AN IMPOSTOR.—During the past week a man has presented himself at the offices of several physicians, bearing what purported to be a letter of commendation from a well-known Philadelphia practitioner. The man is about 50 years of age, with gray hair and whiskers, wearing threadbare clothing and a seedy silk hat. He represents himself as a Scotch surgeon in misfortune, who, having recently lost his wife, is desirous of obtaining financial assistance to enable him to return with his children to Scotland. Inquiries sent to Philadelphia resulted in a prompt repudiation of the man and his forged letter. It is

to be feared, from the list of signatures and the amounts subscribed which the man exhibited, that he has already reaped a comfortable harvest here, encouraged by which he will doubtless extend his operations to other cities with some slight modifications in his methods or credentials.

If physicians to whom such applications for relief are brought would make it their invariable rule to investigate the genuineness of the letters presented before appending their names to the subscription list, they would not only frequently save themselves from being defrauded, but they would avoid a seeming indorsement of an impostor, which may have more or less weight with those who are subsequently shown their signatures.

THE CHARITY COMMISSIONERS AND BELLEVUE.—It is reported that the medical board of Bellevue Hospital has passed resolutions condemning the action of the Commissioners of Charities in removing the warden of Bellevue Hospital. It might have appeared seemly to the vast body of the profession had this same medical board passed resolutions condemnatory of the action of the old charity board when many professional men were removed from positions long held with honor in the charity hospitals. But if it did, such resolutions were promptly tabled. The fact of the matter appears to be that two of the Reform Commissioners appointed by Mayor STRONG are beginning to act independently of the member who remains as a token that there once existed a *régime* under which insult could be inflicted on the medical profession. If these new commissioners will continue their investigation of Bellevue Hospital in the line of determining the relationship, if any, which exists between this public institution and the medical school named after it, the mass of the profession will be satisfied with them as doing their duty in accordance with what is expected of public servants.

INTERMENT AND CREMATION.—*Nature* gives the results of certain investigations of the soil in graveyards made by Dr. LÖSENER, which go far to dispel the idea in the minds of the laity that burial-grounds are sources of pestilence. The duration of the vitality of certain pathogenic bacteria was carefully observed, and it was found that the microbes of cholera lived for about 28 days, those of typhoid 96 days, those of tuberculosis about 100 days. The bacilli of tetanus were found to thrive for a long period, since they could be detected after 361 days. The germs of anthrax, it is not surprising to learn,

survived over a year. As regards the spreading of these germs into the surrounding soil and into streams of water, only those of anthrax could be detected at much distance from the body from which they emanated. In regard to the other germs, none were detected beyond the immediate position of the body or carcass which contained them.

These experiments go to show that ground-burial cannot be considered a source for the spread of epidemics where the precautions insisted upon in all well-conducted cemeteries are enforced. In country districts such method of burial will unquestionably ever remain the favorite. In large cities, however, where land is dear and the population is constantly spreading in every direction, incineration will ultimately prevail over ground-burial. The opposition to cremation is, after all, simply one of sentiment. There is nothing in Holy Writ nor in the creed of any religious denomination which speaks against it. Those who have witnessed the slow decomposition of the human body will always prefer the wholesome and speedy combustion by fire, which simply reduces the body more quickly into the elements which even ground-burial cannot improve upon, the process being only slower. One thing, however, is lacking toward the popularizing of incineration; and this is, more certain methods of securing the desired result at less expense to the feelings of those who witness it. The description given us by some who have been present at incinerations are little short of revolting. Certainly the retort should always have attained the proper temperature before the body is cast into it, and every precaution should be taken to avoid the odor of burnt flesh becoming evident. Such results, however, will surely come in time, as the operation is often enough called for to warrant the expenditure requisite for obtaining perfection in method.

THE NEED OF PUBLIC BATHS.—The American-born citizen is, as a rule, fond of water, and therefore is cleanly in his habits. From force of example the foreign-born, who flock to our shores in search of the Eldorado which they lack at home and hear of as existing here, soon become equally clean. Probably, however, there exists no American city where the facilities offered for securing cleanliness of body are as ample as, we learn from an article in London *Outlook*, pertains in that city and, as a rule, in other cities of old England. True enough, spasmodic attempts have been made in the City of New York to establish public baths accessible in the winter months, as is the case to a degree in the

summer; but nothing here can compare with the system in active operation in England. In London and in Liverpool (the latter city, by the way, having the reputation of being the dirtiest town of all England) there exist countless public bathing establishments, some of them free, but in the majority offering facilities for bathing at rates varying from a penny to 50 cents. In Liverpool there are seven public baths, and these were used last year by 450,000 people. In the smaller towns generally, the public bath is regarded as a municipal institution. In one of the poorest parishes of London, with a population of 80,000, there were 47,000 who took advantage of these free bathing-places.

Since cleanliness is next to godliness in every sense of the expression, the municipal authorities, perhaps the boards of health of our cities, should interest themselves in this matter and provide public baths. The large proportion of the population in our cities have absolutely no facilities for bathing in the tenements they perforce inhabit, and it is not alone an act of mercy to give them such, but it is also requisite from the standpoint of sanitation. The Legislature of the State of New York last year approved of the work being done in this direction by the Tenement House Committee of this city; but as yet there exists but one, or at the best two, public baths open to the populace. Much money is not requisite, since the buildings need not be of an elaborate type. The small fee which should be charged, except in the very poorest quarters, would go far toward the payment of the running expenses.

THE MISSOURI HEALTH BOARD AND MEDICAL SCHOOLS.—At the January meeting of this board three of the medical schools of Kansas City were blacklisted and a number of schools throughout the State were ordered to dismiss some of their first-year men, because of failure to meet the educational requirements of the Board. At the February meeting of the Board representatives from the faculties of the colleges promised to make the requirements of the stringent nature demanded, and the schools were reinstated. Thus is this Board of Health determined to raise the standard of medical education in Missouri, even though the action results in a diminution in the number of medical schools with which the State has long been blessed.

Magnesium Permanganate, $\text{Mg}(\text{MnO}_{14})_2 + 6\text{H}_2\text{O}$, occurs as crumby, bluish-black crystals, which are readily and completely soluble in water. It is surmised that it possesses the same oxidizing—that is, disinfectant—power as the calcium salt recently introduced by BORDAS.

NEUROLOGY AND PSYCHIATRY

Department Editor
PEARCE BAILEY, M.D.
Collaborators

ALBERT WARREN FERRIS, M.D., LEWIS A. CONNER, M.D.,
THOMAS PECK PROUT, M.D., and L. PIERCE CLARK, M.D.

Coffee-poisoning.—GILLES DE LA TOURETTE (*Gaz. méd. de Paris*, July 20, 1895; ref. in *Am. Jour. Med. Sci.*, CX, 1895, p. 707)

T. calls attention to the fact that chronic coffee-poisoning is much more common than is generally supposed, and is generally confounded with alcoholic disturbances. The poison acts principally on the stomach and the nervous system.

The coffee dyspepsia resembles the alcoholic very much; there are, as symptoms, morning expectoration of mucus, pain in the epigastric region, and marked anorexia. The disgust for food finally becomes so great that the patient can only take coffee, or bread soaked in coffee, and in this manner the poisoning rapidly increases in severity; nausea and vomiting, with acid pyrosis next appear, and the patient becomes much emaciated. On the side of the circulation a slowing of the pulse is usually observed, palpitation being rare.

The nervous symptoms are marked. Insomnia is common, or if sleep occurs, it is often accompanied by terrifying dreams. General tremor is often present, with fibrillary twitching of the lips and tongue. Cramps in the limbs may occur. The general sensibility is diminished in a certain number of cases. Paralysis have not been observed. In children, arrest of development takes place.

The stoppage of the coffee generally results in a rapid cure, much more rapid than from similar troubles due to alcohol.

Case of Thrombosis of Lateral Sinus.—LUCAS (*Birmingham Med. Rev.*, January, 1896)

The case was that of a young married woman who had suffered from her ears since the age of 2 years. The attack began with shooting pains in the right side of the head and face, which grew quite rapidly worse till she lapsed into a drowsy state. Temperature, 102; pulse, 65, quite full; right optic disk "choked."

The lateral sinus was opened and a black, breaking-down clot removed and the sinus plugged with iodoform gauze. A thrombus was also removed from the jugular vein. For two days the patient seemed to improve, then became worse with frequent rigors, and finally died, 15 days after the operation.

The autopsy showed pleurisy and consolidation of the lungs with several small abscesses scattered through them. The brain showed no lesion. There was, however, a breaking-down thrombus in the right lateral sinus, which extended as far as the torcular; also considerable pus in the two cavernous sinuses and the straight sinus. Pus was also found in the left orbit. The right internal jugular vein also contained pus and breaking down thrombus.

The extension of the infective process in the cerebral sinus appears to have taken place by the petrosal sinuses to the cavernous and along the ophthalmic vein, giving rise to suppuration in the left orbit. Death took place from pyemic infection of the lungs.

The Remissions of General Paresis.—STEELE

(*Med. Rec.*, 1895, 48, No. 24)

The remissions of this disease rarely occur in any but the early cases, which leads us to infer that the primary change is more in the line of a functional one, affecting the nutrition. Opportunities for observations on autopsy in early cases are quite rare. In a case reported by BERKELEY, which was probably one of MICKLE's "galloping cases," the disease had existed but nine months. There was marked vascular change, degeneration of the blood-vessel walls and a disturbance of the lymph current. The assumption was that the degeneration of the neurons was consequent upon a disturbed cellular metabolism.

The interesting point of this case was the great change in nervous structure after so short a duration of the disease.

The remissions of the early period are generally less noticed, because the physician is rarely consulted in the beginning. If he is, it often appears as a neurasthenia or other mild nervous disorder. It is fair to presume, at least theoretically, that if the diagnosis can be established at a very early period, before a destructive change occurs in the neuron itself, the remission, by proper treatment, may be led to permanent recovery. Special emphasis is to be placed upon the fact that alcoholic insanity or pseudoparesis, in their improvement, should not be confounded with the remissions of true paresis, spoken of in this paper.

Seven cases occurred under the writer's observation at the Utica State Hospital, in which there were marked remissions, varying in length from a few months to years, showing different degrees of improvement from a feeble-mindedness to nearly complete restoration of mental vigor. The first case had a remission of two months, and seemed to gain mental and physical tone, but finally succumbed to apoplectiform convulsions. The second case, although possessed of a strong hereditary, alcoholic, and Keeley-cure history, had a remission of a year, but finally succumbed to paretic convulsions. In the third case, after paresis had become well marked even to the point of convulsions, the patient regained fairly good mental health and remained in this condition for three years, but finally died in paretic convulsions. The fourth case had a remission of nearly one year. The fifth case had several remissions, and after paresis was very well marked, one remission lasted for over two years, but finally the patient died in a convulsion. The sixth case had a remission for one year, after developing grandiose ideas and physical signs of paresis. The seventh case remained well and was employed as a clerk for one year, after a stay at the hospital of several months, during which time he presented all the typical symptoms of paresis. Through the influence of business reverses, he became again afflicted, and returned to the hospital, and is once more typically paretic.

The reviewer is aware that in some of our largest asylums for insane, where many cases of paresis come under observation yearly, the books on close examination show many paretics admitted for the second time, in which the diagnosis was written in ink over lead-pencil marks of "acute mel." and "acute mania."

In these instances it seems that the first diagnosis was incorrect, and that the patient had been suffering from paresis from the first, and that his discharge marked only a decided remission from the disease.

MATERIA MEDICA

Department Editor

WILLIAM FANKHAUSER, M.D.

Theobromine Salicylate.—(*Bericht über das Jahr, 1895, p. 25*)

As is known, the double compound theobromine and sodium salicylate (also known by the proprietary name of "diuretin"), while being a reliable and non-poisonous diuretic, presents certain inconveniences—alkaline reaction, alkaline, nauseatingly sweet taste, and marked instability, even the carbonic acid of the atmosphere suffices to decompose it.

All these drawbacks are said not to be attached to true theobromine salicylate, which is now prepared as a definite chemical salt of the formula $C_7H_8N_4O_8COOC_6H_5$; while this salt possesses all the therapeutic virtues of diuretin, and in an equal degree.

Theobromine salicylate occurs as small, white needles, acid in reaction, of an agreeable bitter taste, and but slightly soluble in water. Quite different from the ordinary salts of theobromine, the salicylate is not decomposed into its components by water; and it is stated to be a perfectly stable compound, not altered by air, moisture, or carbonic acid, as is diuretin.

The dose and use of theobromine salicylate are identical with those of the latter preparation.

Urea in Urinary Calculi.—KLEMPERER (*Berl. klin. Wochenschr.*, 1896, No. 1)

K. draws attention to the solvent powers of pure urea on uric acid. In various cases of nephrolithiasis he has employed urea in 1:200 to 20:200 solutions, and has observed that in a large number of the patients, the remedy not only acted as a strong uric-acid solvent, but that it possessed also diuretic properties. He considers pure urea a physiological diuretic much superior to piperazine or lysidin.

He usually prescribes it as follows:

Pure Urea 10 gme. (154 grn.)
Distilled Water 200 gme. (6½ fl. oz.)
Tablespoonful every hour.

The solution may be gradually increased to 15:200 and 20:200. The latter solution is taken once daily for from two to three weeks. Even these large doses of urea did not in the least disturb the appetite or digestion.

The taste of the solution is not a pleasant one, but it may readily be removed by taking a drink of milk afterward.

Geranium Maculatum in Hemoptysis.—C. J. WENDT (*N. Y. Med. Times*, 1896, XXIV, p. 43)

Clinical experience with geranium maculatum in the phthisical wards of the Metropolitan Hospital, New York, has shown this drug to be of great value in the treatment of hemoptysis. Its hemostatic action does not seem to depend entirely on the tannic and gallic acids it contains, since the administration of either acid, alone or combined with the other, did not yield the same result.

It has been customary to prescribe this drug in from 2- to 5-drop doses of the tincture, repeated every 2 hours upon the first signs of blood in the sputum, and the results have been uniformly good. A few doses generally sufficed to stop the flow, and only in cases of long standing was it necessary to continue the treatment over any length of time.

One case of phthisis pulmonalis, admitted with a history of continuous expectoration of blood for 4 days, and within 12 hours previous to entrance had lost a cupful of bright red blood, was treated with this remedy, and although within 12 hours a second hemorrhage occurred, during which 3 oz. of blood were lost, no further trouble was experienced for at least 10 days, when a few streaks were noticed, and promptly caused to disappear by a few more doses of the tincture.

As many as 50 cases have been so treated in the last few months, and in only one case has it failed to control the flow, this being a case of 4 months' standing.

Not only in phthisis does geranium maculatum seem to be of value, since the same result has been obtained in cases of bronchitis and passive congestion.

Kerosene in Surgery.—A. SCHIRMAN (*N. Y. Med. Jour.*, XLII, p. 720)

The author has observed that in treating wounds and ulcers of the trunk and of the limbs, among the poorer classes, by the usual antiseptic methods, recovery usually progresses very slowly on account of the fact that time and circumstances do not allow the patient to apply these preparations as often as necessary.

For this reason the author determined to try some other substance as an antiseptic, and it occurred to him to try kerosene in these cases.

For this purpose, in cases of ulcers, especially atonic and indolent ones, he smeared them with commercial kerosene, either pure or diluted (from 33 to 50 per cent.) with alcohol, with a small camel's hair brush or with a piece of gauze soaked in the solution. Shortly after the application a burning sensation was felt, but it soon passed away.

The appearance and character of the ulcers showed a change for the better; the discharge gradually diminished, and in the course of from two to four weeks the rapidly granulating surface formed a scar without any contraction of the surrounding parts.

The advantages of the use of kerosene for such cases Dr. S. summarizes as follows: It produces healing in a comparatively brief space of time; it is much more economical and is easily obtained; it does not produce constitutional poisoning through the wound by absorption, as other antiseptics sometimes do; it has not the intolerable smell of some of the others which are now in use; and the formation of a cicatrix on the ulcers proceeds rapidly. The author has never found the wound to be complicated with any erysipelatous process. Kerosene, having a local irritating action on the wound, undoubtedly possesses also disinfecting properties for the remote surface as well as for the adjacent surface around the wound. This is of great value, for actual facts show that persons residing in the kerosene oil districts are protected against ailments of an epidemic character—such as cholera, etc.

Uterine Leucorrhea.—Dr. A. BUSTILLO LIROLA recommends the following astringent and antiseptic solution in the treatment of uterine leucorrhea:

Tannic Acid 2 parts
Alcohol 1 part
Creosote (Beechwood) 1 part
Distilled Water 8 parts

Externally. Tablespoonful of this solution to be used in a liter of warm water for a vaginal injection, to be repeated 3 or 4 times a day.—*Med. Week.*

SURGERY

OPHTHALMOLOGY, OTOTOLOGY, RHINOLOGY,
LARYNGOLOGY, DERMATOLOGY, ORTHO-
PEDIC AND GENITO-URINARY SURGERY

Department Editor
SAMUEL LLOYD, M.D.

GENERAL

In charge of B. FARQUHAR CURTIS, M.D., WILLIAM B. COLEY, M.D., E. M. FOOTE, M.D.

Tumor of the Bladder extending along the Urethra Secondarily.—ADENOT (*Lyon méd.*, 1895, LXXX, No. 44, p. 310)

ADENOT reports the following unusual case: A man 66 years of age was admitted to hospital in such a condition that only an incomplete history could be obtained. For three or four months he had had increasing difficulty and frequency of urination. He had noticed that the urine was cloudy, but never saw any blood. The introduction of a catheter was exceedingly difficult. Supra-pubic cystotomy was performed. Examination of the interior of the bladder did not suggest any idea of the true condition of affairs, nor did the rectal examination, although ADENOT had in mind prostatic hypertrophy as the probable diagnosis at the time, finding nothing but what was explainable on the theory of a slight hypertrophy of that organ. An internal urethrotomy was performed subsequently and the patient improved. The supra-pubic sinus remained open, although a sound could easily be passed by the urethra, and voluntary urination was impossible. The patient then began to lose ground, the passage of the sound caused hemorrhage, some nodules could be felt along the urethra, and one was found in the glans. Priapism occurred with great pain. The patient died with cachexia about four months after admission. The autopsy showed a tumor involving the entire base of the bladder, which had also spread along the mucous membrane of the urethra. Secondary deposits were found in the peritoneum, liver, os sacrum, and especially the lung. ADENOT thinks that the stricture was inflammatory, not neoplastic, and that the urethrotome wounded a nodule of the tumor in the bladder and grafted tumor tissue in the urethral wound, because it is so rare for a vesical growth to extend in that direction. The microscopic examination declared the tumor an epithelioma.

Tracheocele.—KLAUSSNER (*Münch. med. Wochenschr.*, 1895, p. 997)

KLAUSSNER reports the following cases of the rare form of air cyst of the neck known as tracheocele. A man, 31 years of age, had noticed a whistling sound in his trachea since youth, and recently had had some difficulty in breathing, coming on suddenly at night, compelling him to sleep in upright position. If he closes mouth and nose and makes an expulsive effort, his neck suddenly swells up, and as suddenly returns to its normal size when the pressure is relieved. The momentary tumors appear on both sides of the middle line, and they appear first from behind the sternum and left clavicle, spreading upward, attaining the size of a man's fist on the left, that of a child on the right, both being decidedly globular in shape. Strong pressure above the sternal notch will prevent the swelling. The tumor is dull on percussion, and aspiration yields only clear

blood. The patient has three children, and one of them, six years old, has two cervical tumors, the size of a child's fist, which appear on straining, one on each side of the trachea.

These air cysts are held to arise from congenital formations, from cystic dilatations or pouches formed by the mucous glands, or from traumatism. They usually appear first after some severe cough or effort at vomiting. The condition is most frequently confused with a very vascular goiter. In the way of treatment little or nothing can be done. Operation would only be indicated in cases of unusual severity of symptoms of pressure, and would be very difficult.

Successful Operation for Tumor of Brain.—ROTH (*Berl. klin. Wochenschr.*, 1895, p. 904)

ROTH reports a case of epithelioma of the brain occurring in a patient 60 years of age, with Jacksonian epilepsy, beginning in the right thumb and forefinger, spreading up the arm, over the face, and then affecting the right lower extremity. Paralysis followed an unusually severe fit, but gradually subsided. The eye gave no symptoms. Severe headache followed the attacks. The tumor was located in the region of the left central fissure. Mixed treatment was without effect, in spite of a previous history of syphilis. After several months an exploratory osteoplastic operation was done, and the bone found thickened and roughened and adherent to the dura, but the latter appeared healthy. The bone was evidently the seat of some neoplastic process and was removed, and the wound closed. The microscope showed a new tissue formed of round cells. The symptoms were not relieved, and six months later the brain was exposed at the same place, and found to be the seat of a reddish-brown pulsating tumor, very soft, adherent to the pia mater, and penetrating between the convolutions, but external to the cerebral gray matter. The mass was the size of a hen's egg. Paralysis of the right side followed the operation, but this subsided, and the patient's other symptoms also disappeared.

Gastro-Enterostomy with Murphy's Button.—QUÉNU (*Le Progrès méd.*, 1895, Oct. 19, p. 244)

Quénu presented specimens to the Paris Surgical Society from a case of gastro-enterostomy performed after resection of the pylorus, with closure of both duodenal and stomach ends. The Murphy button which was employed remained in the stomach, but the patient recovered and remained well for a year, when he died with signs of recurrence, icterus, and cachexia, but no vomiting. At the autopsy the button was found free in the stomach, where it had given rise to no lesion, and the intestinal opening was patent. MONOD stated that he had observed a similar case.

A New Operation for Varicocele.—BRAULT (*Lyon méd.*, Oct. 13, 1895)

BRAULT recommends a variation of the ordinary operations for varicocele, combining a resection of the veins and of the scrotum. He pinches up a lateral fold of the skin of the scrotum on the diseased side, and compresses its base with two long curved clamps. It is then excised, leaving an oval or lanceolate wound exposing the tunica and the cord. The latter is carefully dissected and each vein tied between two ligatures and divided separately. In this way no injury of the artery or vas deferens is possible. The inferior angle of the incision is then

drawn upward and sutured to the upper in such a way as to transform the wound into an angular one, the apex lying over the cord near the root of the penis, while one arm runs downward and forward toward the *raphé* of the scrotum, and the other runs outward and backward toward the thigh, or, rather, the outer aspect of the scrotum. In this manner support is obtained, and at the same time the scrotum is restored to its infantile, pear-like shape.

GENITO-URINARY

In charge of GEORGE KNOWLES SWINBURNE, M.D.

Citric Acid in the Treatment of Gonorrhea.—

(Abstract in *Aerzt. Prakt.*, 1895, p. 690, from *Aerzt. Rundsch.*, '95, No. 25)

PELLISSIER reports favorable results in the treatment of gonorrhea with solutions of citric acid. His reason for using it is that it is a parasiticide, and that gonococci cannot grow on an acid medium. He uses it in 1-per-cent. solution, injected into anterior urethra six times daily, or by irrigation in strength of 8:1500 up to 8:1000, in both anterior and posterior urethra. He claims that it causes little or no pain and no irritation. He reports 15 cases successfully treated without complications.

A Case of Dislocation Backwards of the Penis.—

L. G. FISCHER (*Lancet*, Nov. 13, '95, p. 1289)

Under this title F. reports a very curious and interesting condition following a severe accident which came under his notice in his service in India. The patient was a Mohammedan child 5 years old, brought to the hospital suffering from infiltration of urine. Four days before he had fallen under a cart. When seen, the lower part of abdomen, scrotum, and perineum were distended with urine. The penis appeared to be normal. The infiltration was relieved by incisions. Recovery resulted, but a fistulous tract remained above and to the left of the pubes, and the case then passed from observation. Six months later he was again seen; the fistulous tract remained, from which all the urine came; the penis appeared normal but shriveled. A catheter was arrested, on attempting to pass it, at the peno-scrotal angle. It was then discovered that the supposed penis was only skin, there was no glans and no corpora cavernosa; the fistulous tract was slit up (under chloroform), and the penis itself found in the bottom of the wound, the glans presenting at the orifice of the fistula. A catheter could then be passed. The glans and corpora cavernosa were dissected from their surrounding adhesions, and the skin of the penis slit up the dorsum and the parts replaced and sutured. Recovery and cure resulted.

Flooding the Urinary Tract.—B. H. DAGGETT

(*Atlant. Med. Wkly.*, 1895, p. 228)

D. describes an ingenious method of flushing out the urethra and bladder from the meatus, which he believes to be superior to the method adopted by FELINE, of Buda-Pesth, and recommended by BREWER in a paper read before the Am. Assn. of G. U. Surgeons in Washington, June 1, 1894, inasmuch as absolutely no force is used by this method. He claims excellent results in cystitis, both acute and chronic, also in cystitis dependent upon enlarged prostate with residual urine.

The patient assumes a semi-recumbent position, the body being at an angle of 45°, the knees drawn up. The irrigator is raised only about a foot above the plane of the pelvis, the nozzle being placed at the meatus. This position favors the gravitation of

the fluid into the bladder. He uses an irrigator, holding 3 or 4 qts.; the fluid, simply saline or medicated, is heated to 110° or 112° F. By this method the bladder slowly fills, and when filled, the patient urinates without changing his position; thus, by what D. terms bladder gymnastics, the bladder may finally completely empty itself in cases where there is residual urine, and no violence is done to the tissues.

Extirpation of the Kidney for Malignant Tumors.

—JORDAN (*Beit. zur klin. Chir.*, XIV, No. 3, p. 587)

This valuable contribution is based on a study of the cases observed at the Surgical Clinic at Heidelberg (CZERNY'S). In 9 cases operated upon since 1889, the mortality has been 0 per cent. This compared with earlier statistics shows a wonderful improvement. The combined statistics of GROSS, BRODEUR, LIEGRIAL, and TUFFIER gave an operative mortality of 52½ to 66 per cent.

The mortality in 12 cases operated upon by CZERNY previous to 1889 was 75 per cent., which is in striking contrast with the 9 cases operated upon since 1889 without a single death.

The final results are far more important than the operative mortality.

Of the 12 cases operated upon prior to 1889, only 3 survived. Of these 1 died 6 months later, a second 2 years later, and the third, in which partial nephrectomy had been performed, had a recurrence 1½ years later, when total extirpation was performed. This case was well 5¼ years after. Of the 9 cases operated upon since 1889, only 2 are still living, 1 a proliferating cystadenoma, well 1¼ years after operation, and one, angio-sarcoma, well 5¼ years.

Of the 7 other cases, 1 died 2¾ years after operation. A second had recurrence 6½ months after total extirpation, and 2¾ years after partial extirpation; 3 died from 3 to 5 months after operation, and 2 had metastasis—1 3 months after operation, and the other 1 year and 10 months after operation.

JORDAN states that out of 150 to 160 operations for malignant tumor of the kidney, only 5 cases remained well 4 years after operation.

ORTHOPEDIC

In charge of T. HALSTED MYERS, M.D.

Nailing the Femur to the Acetabulum After Resection.—MONTAZ (*Ann. d'Orthopédie*, VIII, No. 11, p. 338)

Stability is indispensable in the lower limb. If a hip-joint disease is cured and motion is retained, the joint is sensitive and painful, without speaking of the danger of relapse. When there is, however, either bony ankylosis or firm fibrous union, the patient can walk with ease and cover long distances without fatigue. But bony ankylosis is rare after the usual methods of resection. The femur, after the head has been removed, is apt to slip up upon the ilium and is loosely attached to the acetabulum by the remnants of the old capsule. There is, therefore, a more or less flail joint and a great deal of shortening. MONTAZ seeks to obtain firm bony union at once by nailing the femur to the acetabulum. He uses stub nails, nicked, sufficiently long to pass through the femur and penetrate into the thickest part of the rim of the acetabulum about 2 ctm. When the point of the nail appears on the internal face of the femur it is placed against the part of the ilium selected, and a few more blows

of the hammer complete the fixation. A second nail is rarely necessary. Screws may be used instead, after drilling holes for them. The nails or screws are left bare at the bottom of the wound and removed later.

The Employment of Mechanical Force in the Treatment of Lateral Curvature.—BRADFORD AND BRACKETT (*Bost. Med. and Surg. Jour.*, CXXXIII, No. 15, p. 357)

The authors, after discussing the theory for this treatment, and the various methods of employing mechanical force in the treatment of lateral curvature, recommend a recumbent frame for this purpose, thus avoiding the discomfort of prolonged suspension required in the apparatus of the Hoffa, Schede, Lorenz, or Zander types.

The frame is made of $\frac{3}{4}$ -in. galvanized gas pipe, 6 ft. in length and 24 in. in width.

Across this, with a space of four to six inches, are stretched broad webbing-straps on which the patient lies prone, and which may be made tight or loose according as we may wish to make greater or less pressure over certain portions. The frame is fitted with heavy circular bands of iron, which are adjustable at any point in the length of the frame, and on these are carried the screws and pads by which the pressure is made on the projection portions of the thorax at any point in front and behind, and at any angle in the same manner as in the upright machines. In addition to this, the plaster adhesive straps described by SCHEDE are placed around the sides of the thorax, and are attached to weights by a cord which passes through a pulley at the sides of the frame, and in this way exerts a lateral pressure and at the same time a torsion pressure at the point desired. For the subsequent treatment in the severe cases, fixation by means of appliances for a while and developmental muscular exercises are needed. If the corrected attitude is maintained, the bones will be in a position to grow into a more normal shape. In the lighter cases only developmental muscular exercises are needed after the flexibility has been secured.

DERMATOLOGY

In charge of HENRY W. STELWAGON, M.D.

Infantile Syphilis.—BOULENGIER (*Jour. des Mal. cut.*, 1895, VII, p. 705)

The author concludes that by the term infantile syphilis must be understood syphilis of the child—no more, no less; that infantile syphilis may be acquired or congenital; that hereditary syphilis in the sense of the transmission of the disease by the ovule or spermatozoa is not proven; that syphilis by conception is not demonstrated either, and appears to rest upon an embryological impossibility; that congenital syphilis should be a syphilis acquired *in utero*; that hereditary syphilis embraces all the cases parasymphilitic of the parents in which the constitution is undermined and there is transmitted to their offspring general debility, rachitis, tertiary scrofulo-tuberculosis, idiocy, neuroses, mental alienation, etc.

A Remarkable Case of Purpuric Eruption Ending in Gangrene, apparently Caused by Sodium Salicylate.—FRANCIS J. SHEPHERD (*Jour. Cut. and Gen.-Urin. Dis.*, 1896, XIV, 16)

A man 32 years of age, who received 20 grn. of sodium salicylate three times a day, showed, after taking 60 grn., an urticarial-like eruption, which was unaccompanied by marked itching. The eruption appeared in crops, the first one being the most

severe. The drug was discontinued. The lesions became petechial, hard, and raised above the surface of the skin. In some areas sloughing took place in one region of the scapula, the sloughing being followed by the development of a slowly healing ulcer. The eruption was a general one, the palms of the hands and the soles of the feet alone remaining free. The mucous membranes of the mouth and upper respiratory tract were involved, and, edema taking place, there was for a time danger of suffocation. The first appearance of the eruption was on the right leg and thigh, then the left leg and left elbow; later the trunk, the backs of the arms, the face, the mouth, the shoulders were in turn invaded. The posterior surface of the body was much more freely attacked than the anterior surface. Myalgic and arthralgic pains accompanied the eruption. The heart was normal. At one time there was a trace of albumin in the urine. There was no blood nor pus in the urine. The bowels were not disturbed. The author questions if the eruption was due entirely to the ingestion of the drug.

A Note on the Permanent Staining of Ringworm Fungus.—H. G. ADAMSON (*Brit. Jour. Dermat.*, 1895, VII, p. 373)

For the staining of the ringworm fungus the author combines the caustic potash solution with the ordinary staining method. Dr. ADAMSON claims that the keratin nature of the horny tissues is lost by the use of the caustic potash, and that decolorization takes place as in non-horny epithelial tissues. The details are as follows: 1. 5-per cent.—10-per cent. solution of caustic potash on the slide for ten to thirty minutes. 2. Wash in 15 per cent. alcohol in water. 3. Dry on the slide, and, in the case of scales, fix by passing through the flame. 4. Stain in gentian-anilin-violet (made in the usual way by the addition of a few drops of saturated alcoholic solution of gentian-violet to anilin-water), fifteen to sixty minutes. 5. In Gram's iodine solution one to five minutes. 6. Decolorize in anilin-oil two or three hours or longer. 7. Remove anilin-oil by blotting-paper and mount in Canada balsam.

Affections of the Skin Occurring in the Course of Bright's Disease.—P. H. PYE-SMITH (*Brit. Jour. Dermat.*, 1895, VII, 284)

Besides the dermatitis known as erythema leve, which is a recognized accompaniment of Bright's disease, the author mentions the following: 1. A bright red diffused rash, which appears chiefly on the trunk, and which the author speaks of as "roseolous." 2. A papular eruption, which the author has seen most often on the outer side of the thighs and legs, the shoulders and extensor surfaces of the forearms. The author speaks of this form as "lichenous." 3. A moist dermatitis, which resembles eczema, but which does not show the irritation commonly present in an eczema. 4. The author states that in two cases he has seen a very extensive and profuse dermatitis, resembling exfoliative dermatitis. These forms of dermatitis are similar in that they are superficial lesions, are acute or subacute, and seldom recur. They are non-pustular, according to the author's observation, are seldom purpuric, and the subjective symptoms are usually slight. They usually occur late in the disease. The author is not inclined to associate them with uremia, but rather with severe inflammations. He has found these cutaneous lesions in the late stages of chronic tubal nephritis or at any stage of granular degeneration of the kidney, and has noticed no relation with gout, plumbism, or intemperance.

SOCIETY MEETINGS

NEW YORK ACADEMY OF MEDICINE

SECTION ON OPHTHALMOLOGY AND OTOLGY

February 17, 1896

JOSEPH A. ANDREWS, M.D., Chairman

Empyema of the Frontal Sinus.—Dr. WENDELL C. PHILLIPS: This patient has had nasal catarrh for three years past. About three months before admission to the hospital, an abscess developed in the left frontal sinus accompanied by an extensive periostitis. The abscess was evacuated, but a sinus remained just underneath the supra-orbital ridge and on the temporal side of the foramen. A number of nasal polypi have been removed since this time. There is a specific history, but the general health is very good. An opening about $\frac{1}{8}$ of an inch in diameter was made through the lower portion of the nasal eminence at the lower part of the frontal sinus. Quite an extensive polypoid growth protruded, and nearly half an ounce of polypoid masses was curetted, and then after irrigation the sinus was packed with gauze. This dressing has been changed about once in three days. A curved tube wound with gauze was passed through the infundibulum, but no drainage tube was inserted, as the opening seemed to be ample. The progress of the case has been satisfactory so far.

Atrophy of Nerves Following Hemorrhage of Stomach.—Dr. J. E. WEEKS: The patient, a man of 32 years, had a severe attack of hematemesis, and also passed some blood from the rectum. On the third day after this he came thoroughly to consciousness, and was surprised to find that he could not perceive light at all. He came to the New York Eye and Ear Infirmary a few days ago, and on examination I found both disks very white and the blood-vessels small. The outlines of the disk were fairly defined, but there is sufficient haziness to indicate a slight neuritis. The vision in the left eye is entirely abolished, but there is some vision in the other eye. The field is extremely small, but in this field vision is $\frac{3}{8}$ ths. The man has complained of some shooting pains in the extremities. He claims that his vision is improving somewhat. There is nothing in the fundus indicating that the macular region in the right eye is preserved, nor any evidence of inflammatory condition, aside from what I have mentioned. There are a few ill-defined white spots near the macula in the right eye, indicating that effusion into the retina probably occurred at the beginning.

Dr. H. KNAPP: I have seen cases of this kind, and they have remained blind; but this does not necessarily indicate the true prognosis, as the good cases do not go to the specialist.

Dr. WEEKS: I have found a monograph by FRIES (Tübingen, 1876) containing a collection of 96 cases of atrophy after hemorrhage from various parts of the body, hemorrhage from the digestive tract being the most frequent. Uterine hemorrhage was the next in frequency. In this article it was stated that about 50 per cent. of the cases recovered more or less vision, except in the cases following hemorrhage from the stomach. In one case which I have seen, associated with uterine hemorrhage, the patient was totally blind.

Emphysema of Eyelid.—Dr. THOMAS R. POOLEY: This young man came to my clinic this afternoon

with an injury to the eye. He has greatly improved in the last few hours. The case is one of emphysema of the lids and adjacent parts. He was injured about 1.30 p.m., and I saw him about one hour later. He had received a blow on the orbit while unloading a furniture van. He says there was very little effect on the eye except pain, but shortly after this he blew his nose, and at once there was marked swelling about the eye. Crepitation was very evident in the lid on palpation. When firm pressure was made on the upper lid, it could be reduced at once almost to its natural size, but while this took place the lower lid became proportionately more swollen. On reversing this procedure, I could see the bubbles of air invade the subcutaneous tissue and distend the lid. The condition is, of course, the result of a fracture, which has allowed the air to enter the tissues through the nose, or frontal sinus or antrum. In this case, I think, the fracture was produced by *contre coup*, since there is no evidence of injury over the nose. Where the orbit is invaded there is exophthalmos, in which case the os planum of the ethmoid is the bone which is fractured. In this case, probably, the lachrymal bone was broken. Simple treatment by bandage pressure has already greatly improved this case.

Recurrent Paralysis of Third Nerve in Women.—Dr. T. Y. SUTPHEN, of Newark: I desire to report two interesting cases. The first, Miss C—, 16 years old, came to me on January 30, 1895, because of double vision. She had begun to menstruate before she was 11 years of age. The first trouble with her vision had occurred about three years before, when, at a menstrual period, the right upper lid became paralyzed. This had been preceded by unilateral headache without nausea. The recovery was very tedious under the use of large doses of potassium iodide. In September, 1894, at a menstrual period, there had been a marked drooping of the lid and divergence of the eye. This recovered completely in two weeks without treatment. In November there had been a recurrence of the affection, which gradually disappeared, leaving a diplopia. I found slight droop of right upper lid and a general paresis of third nerve with the exception of the iris sphincter. Color perception was good. The fundus appeared about normal. Cylinders were prescribed, and seemed to lessen the double vision. In November, 1895, she came to me with marked paresis of the superior, inferior, and internal recti. Ophthalmoscopic examination was negative. On December 13, at a menstrual period, the paralysis returned; the pupils were normal and responsive; vision was reduced to $\frac{4}{8}$ ths. Iodide of potassium was ordered in ten-grain doses. On February 8, 1896, she appeared perfectly well, except for headaches and slight diplopia. Her vision was $\frac{4}{8}$ ths in the right eye with correction.

The second case was that of Miss J—, 16 years of age, who first came to see me on January 17, 1896. From early childhood she had had recurrent attacks of double vision, generally preceded by headache upon the left side. For several days the left eye would be turned, accompanied by more or less drooping of the lid. Since her first menstruation, one year ago, the eye trouble has returned with fair regularity with the menstrual periods. I found complete paralysis of left third nerve, the left pupil being dilated; ophthalmoscopic examination negative. She was given iodide of potassium, but when last seen the paralysis was unchanged. There was no evidence of hysteria. I have met with a number of peculiar eye symptoms in women suffering from disordered menstruation, particularly near the meno-

pause, but these two cases appear to me to be unique. I hope to make a further study of the histories of similar cases in the future.

Cavernous Angioma of the Orbit.—Dr. H. KNAPP: The first specimen which I have the pleasure to present to you has been kindly sent to me by Dr. S. C. AYRES, of Cincinnati, Ohio. It is an exceedingly rare one—being of its kind only the third on record. Before his published account had reached me I had operated upon a clinically exactly similar case, but which pathologically proved to be a hemangioma. Both tumors developed in the muscle fascia. In my case there was exophthalmos occurring in a man about thirty years of age. He complained of dimness of vision about eleven years before, but this had disappeared until about five years ago, when the exophthalmos had begun. I found the eyeball pushed forward almost directly in the axis of the orbit. The eye moved perfectly in every direction; the sight was tolerably good. The diagnosis seemed to be a tumor of the optic nerve. There was optic neuritis, and especially venous congestion of the retina. I thought it might be possible to remove the tumor and preserve the eyeball. Nothing definite could be learned by palpation. I detached the internal rectus muscle and inserted two sutures in the tendon. I then penetrated between the muscle and the sclerotic until I came to a layer of fat, when I was able to feel the tumor very distinctly. After removing this fat the tumor was seen directly behind the sclerotic. It was well circumscribed, and of a bluish color. I isolated the anterior part of it with curved scissors, and the posterior part with a curved chisel. The capsule of the tumor was not injured. The optic nerve was found to be normal. I then stitched the tendon to the sclerotic, as in a case of advancement. The eyeball at once took its position with slight convergence. There was no diplopia after the operation; the movements of the eyeballs were normal, and the pupil moved naturally. A few days later I cut the sutures and the eyeball gradually returned toward its natural position. He rapidly gained in sight.

Examination of the specimen shows it to be an unusually fine specimen of an erectile tumor. Before it was hardened it measured 37 by 24 by 18 mm. The tumor from Dr. AYRES's case does not have such a distinct framework. It is rather difficult to explain the occurrence of lymphangioma in the orbit; for, so far as I know, the existence of lymphatics in this region has not been recorded.

Dr. WEEKS: The cellular structure of the trabeculae in this specimen differs from that commonly met with, and shows less rapidity of development than is found in ordinary cavernomata. I suppose that the tumor was congenital in its origin, and very slow in growth.

Dr. POOLEY: I should think there must have been of necessity some restriction of the motions of the eyeball, because of the fact that the tumor was developed in the sheath of the muscle. Ordinarily these cavernomata are not encapsulated, and are quite difficult to operate upon. The operation is also a very bloody one. These tumors are situated very deeply in the orbit. This afternoon I saw a woman with a vascular tumor on the forehead near the median line. She is about thirty-four years of age, and the tumor is congenital. She says that it grew distinctly up to her thirteenth year. It now measures $1\frac{1}{2}$ in. vertically and $\frac{1}{4}$ in. horizontally. The tumor was distinctly vascular, and in the center there appeared to be a hard nodule. The subjacent bone appeared to have been eroded. It would seem

that the result of the pressure of these tumors is greater than is generally supposed.

Dr. KNAPP: I think this is an analogue of vascular tumors, such as develop in the lids, and are of congenital origin. They are usually without a capsule. But the tumors, such as I have presented, apparently develop isolated in the depth of the orbit, and, owing to the great resistance which they meet with, they grow very slowly, and acquire a dense capsule. The encapsulated cavernomata do not pulsate. They give no bruit, and the exophthalmos is not increased when the patient bends the head or coughs. These are important points in the differential diagnosis.

Papilloma of the Conjunctiva and Cornea.

Dr. J. E. WEEKS: Papillomata are considered to be excessive growths of normal papillae, but they may exist on surfaces in which normal papillae are not found. Papilloma of the conjunctiva cannot be said to be an extremely rare affection; papilloma of the cornea is, however, extremely rare. It proceeds mostly from the region of the caruncle. They produce a raspberry or cauliflower appearance. Papillomata are confounded with granulomata and polypi, but microscopical examination will readily differentiate between them.

In the first case, seen March 28, 1893, there was a mass about 1 cm. in diameter, which had been noticed for about one year. The growth was carefully dissected from the caruncle, but it returned in a few weeks, and again a few months later.

The second case, J. A. —, 28 years of age, seen June 18, 1895, had a mass of tissue about the size of a bean attached to the conjunctival surface of the upper lid. It had been removed once before. The removal was effected by the electro-cautery knife. When seen three months later, there had been no recurrence.

I am indebted to Dr. RICHARD A. DERBY for the following:

Mr. McA—, 55 years of age, came to the infirmary about three years ago with a papilloma of the cornea. Just before enucleation the lower lid presented an ectropium and a thick villous growth, which just filled the palpebral fissure. On macroscopical examination the growth was lobulated, the masses springing from the cornea measuring from 1 to 6 mm. in height. The masses projected from the ocular conjunctiva a distance of 7 mm. The microscope showed that in no place did the epithelial cells extend below the normal level of the cornea. The vascularity of the ocular conjunctiva was greatly increased. AYRES, in the *Journal of the American Medical Association*, reported a case seen by him in a female, coming under observation in 1889. It presented numerous cauliflower excrescences. Six years previously a slight excrescence had been first noticed. There were frequent recurrences of the growth. Enucleation was finally performed. The papilloma was found to spring from the conjunctiva, and the whole of the cornea. In rare cases it appears that the papilloma attacks the cornea primarily. A cure can only be effected by very thorough removal. There is no evidence, however, to show that a papillomatous growth may become malignant. The presence of micrococci in large numbers in DERBY's case suggests the possibility of their having a causal relation with the case. The prognosis is favorable in papilloma, even when this is very extensive. The treatment by superficial removal, scarification, and by the application of alum, should be carefully tried before resorting to enucleation.

Dr. KNAPP: I think that papilloma of the corne

is not so difficult to treat as would appear from the cases reported. They must be treated, however, very radically or they will return. In several recurrent cases I have cut them away with a fine knife from the depth of the cornea, and singed the whole surface of the wound with a flat galvano-cautery electrode. In these cases there was no further recurrence. One of them was operated upon over 10 years ago. In another case I have learned that there was no recurrence, at least after 15 years. The procedure looks hazardous, but appears to be perfectly safe.

Dr. POOLEY: Some years ago I presented a case of papilloma of the sclero-corneal margin to the New York Ophthalmological Society. I operated upon the patient in the same way that Dr. KNAPP has done, with the exception of the cauterization. I kept him under observation for many years, and there was no recurrence, and the operation yielded a very satisfactory result.

Dr. WEEKS: The reported cases certainly show that the treatment, aside from enucleation, employed in them has been quite satisfactory. However, I think the inclination on the part of the majority of ophthalmologists is to remove such eyes as soon as possible. Taking the condition of the interior of the eye into consideration, it seems to me that a very determined effort should be made to get rid of the growth without enucleation. Such effort will probably always succeed.

GENERAL MEETING

February 20, 1896

JOSEPH D. BRYANT, M. D., President

Treatment in Disease of Upper Respiratory Tract.—Dr. F. H. BOSWORTH: At a meeting of this academy about fifteen years ago, I read a paper on "Some of the Unsettled Questions concerning Nasal Catarrh." I made the assertion at that time that I did not believe any physician, no matter how skilled, is justified in promising a cure in a given case of nasal catarrh of long standing. I made this confession after ten years of special study on my part of the diseases of the nose and throat. There have been many evidences of marked progress since this statement was made. I shall invite your attention to some of the more important of these steps in advance.

Of the very first and highest importance I regard the discovery of cocaine by CARL KOLLER. Not only has cocaine been found useful as a local anesthetic, but it possesses a far more important action in depleting the blood-vessels. It is this action which has rendered the treatment of these diseases possible. This discovery reached us in the fall of 1884. In May, 1885, a paper was presented by the writer in which, I believe, the true physiology of the nasal passages was first set forth. I contended that the function of the large venous surfaces constituting the turbinated bodies was to pour out serum, which was then taken up by the inspired air. The nose, therefore, really contains an exceedingly important part of the respiratory tract, and on its healthy function depends the integrity of all the respiratory passages below. The use of the term "nasal catarrh" was based upon the belief that disease of these passages resulted in an excessive discharge, whereas the more important point for our consideration is the maintenance of the normal respiratory function of these passages. If the lumen of the nares is interfered with by the presence of bony or cartilaginous growths, we should remove them. The septum may be cut away freely, for it

has no special function. We have learned in recent years that the secretions from the nose are bland, and are never offensive *per se*. We have also learned that excessive discharge from the nose is not a common condition demanding treatment. The existence of a purulent discharge we have learned to recognize as pus retention in one of the accessory sinuses, thus constituting a chronic abscess or empyema. I still adhere to the statement, made often in the years past, that bony necrosis in the large majority of cases is due to constitutional disease. In my experience with ethmoid disease there has been an associated disease of the antrum in many cases. We have established a definite classification of diseases, make careful diagnoses, and carry out our treatment on much more definite indications than has ever been done before. We do not treat all cases of headache by nasal treatment, but we can often give a great deal of relief by such means. I think we can report to the academy that our section is doing good work, and that our recent work has been in the line of definite scientific advance.

Dr. M. J. ASCH: The reader of the paper has very justly given to Dr. KOLLER the credit of the discovery of cocaine, which has been of such benefit to the laryngologist and rhinologist. I may say, however, that the use of cocaine has been greatly abused. The constant use of cocaine in the nostril brings about a habit almost as baneful as that of the alcoholic or morphine habit. I believe it is better, wherever possible, to operate without cocaine, because of the danger of secondary hemorrhage in cases in which cocaine has been used. This is due to the action of the cocaine in temporarily depleting the parts of blood. As has been said, much advance has been made in the last fifteen years in the treatment of the accessory sinuses, but I think there is danger of doing a great deal too much in this class of cases. It has been my lot to see cases where operations have been performed, and yet it was evident that there was no disease of the particular sinus supposed to be involved. In disease of the maxillary sinus it is stated that the easiest way is to make a puncture through the inferior meatus. This seems to be simple, but it may be difficult and even dangerous. In many cases such a puncture may never reach the sinus on account of its peculiar conformation. If there is a very concave meatus, the cavity will be so small that you will probably not reach it. It may even be that you will puncture the orbital plate. Nearly all these cases of sinus disease are obscure, and I doubt if even the most experienced in our branch of medicine will be able to make a diagnosis or operate successfully without a very careful study of the subject. It seems to me that the work that has been done in this specialty has been well done by the Laryngological Section.

Dr. R. C. MYLES: In my opinion we cannot practice nasal surgery intelligently without cocaine. Prior to its introduction our diagnoses were quite indefinite.

The author of the paper, ASCHENBRANDT, and KAYSER have asserted and demonstrated that all of the moisture and heat for the respiratory organs is derived from the nasal organs; yet I think that practical demonstration will prove that the mouth, oropharynx, trachea, and bronchial tubes are capable of furnishing, and do so when the nose is closed, almost as much heat and moisture as when nasal breathing is performed.

The nasal septum has many glands, and I cannot agree with Dr. BOSWORTH that it is a portion without function. I do not believe that the nasal septum can be cut away *ad libitum* with impunity.

Where it would be indicated to remove the middle part of the vomer, or septum, it would seem to be better to take off a part of the turbinated bodies. We have made very decided advances in the treatment of diseases of the accessory sinuses. In cases of polypoid degeneration of the frontal sinus it will be found that the ethmoid is almost always softened, although not strictly in a condition of necrosis. It has been my experience, in cases of polypoid degeneration of the frontal sinus and the ethmoid cells, that the soft silver irrigation tubes can be introduced into the frontal sinus without danger, and the diagnosis can be made from the degenerated material that comes away with the fluid. When the frontal sinuses and the antrums of Highmore have been properly opened and curetted, the results in nearly every case have been most satisfactory.

Dr. J. W. GLEITSMANN: Mention has been made by Dr. ASCH of the difficulty of puncturing the antrum of Highmore from the lower meatus. Two years ago I imported SCHMIDT's syringe. I must confess that I was unable to puncture the sinus with this instrument, but when I met Dr. SCHMIDT I spoke to him about my failure in this respect. He then showed me that the accessory sinus could be easily punctured from the lower meatus about three-quarters of an inch back, instead of anteriorly as I had been doing. I have done it very frequently since then, and with good results. It is true, of course, that the puncture cannot be made in some instances owing to the conformation of the parts.

Dr. BOSWORTH: If cocaine is a dangerous drug, we should know just how dangerous it is. I have been looking for the past ten years for a well authenticated case of pure cocaine habit. As a rule those which I have seen have been cases in which the cocaine was associated with rum or morphine. These cases constitute the worst instances of drug slavery which we meet. I do not look upon it as the enslaving habit that many think it is. I have never met with a case of cocaine habit that has seemed to be much more serious than the chewing-gum habit. By far the most important part of the respiratory tract is the turbinated bodies, and their most important function is serous osmosis. If the turbinated body obstructs, it is absolutely unjustifiable, in my opinion, to destroy this important functioning body. The true indication for treatment is to restore function. The establishment of the true physiological function of the nose, and the discovery of cocaine I consider to be the two most important discoveries of the last fifteen years.

The Pharynx.—Dr. J. E. NEWCOMB: If we omit from consideration the antitoxin treatment of diphtheria, it can hardly be said that our knowledge of diseases of the pharynx has kept pace with that of other portions of the upper air-passages. All doubt has been removed as to the necessity of thoroughly disinfecting the pharynx, even when the lesion is distant. For those cases in which a general anesthetic is required for a short time only, preference in this country seems to be for ether. Abroad, chloroform is more commonly used, but bromide of ethyl has found considerable favor. Adults require about 1 oz. and children 2 to 3 dr. of the ethyl compound. Analgesia lasts longer than the period of unconsciousness. The agent is practically unflammable. The period of excitement is transient; vomiting is rare; there is no tendency to the production of cardiac disturbance or of cerebral anemia; and the vapor is non-irritating. It causes, however, hypersecretion, and is not suitable for prolonged operation. If too long inhaled, it may cause muscular contraction. In antipyrine we have a re-

markably effective adjuvant to cocaine. A good mixture is: Antipyrine, 2 parts; cocaine, 1 part; distilled water, 10 parts. The antipyrine prolongs and intensifies the effect of the cocaine. A 50-per-cent. solution of the former has been successfully employed by injection in painful ailments. In cases of laryngitis and dysphagia, relief of pain from such an injection lasts for about twelve hours. The amount of antipyrine used in all such procedures should not exceed 35 ctg. Another method of producing anesthesia of the pharynx is to apply a 5-per-cent. solution of guaiacol in pure olive oil on a cotton-wrapped probe, rubbing it in energetically. Not more than 2 c.c. should be used. Anesthesia follows in fifteen or twenty minutes, and it is more prolonged than that of cocaine.

The possibility of the recurrence of lymphoid hypertrophy has been presented to this section in a recent paper by Dr. F. E. HOPKINS. There is nothing new to be said about the removal of such tissue, except that if the finger be used for removing the tags of tissue left behind by the various instruments, the operator should remember the requirements of modern antisepsis. DIEULAFOY has called attention to the fact that there may be a concealed tonsillar tuberculosis situated in the lymphoid tissue. There is no doubt that the faucial and lingual tonsils may become infected by swallowing tuberculous material.

Naso-pharyngeal Tumors.—The improvement in the technique of electrolysis offers hope that the more formidable surgical procedures may be rendered unnecessary. Ligation of the carotids is useful in this connection. The hot snare is not so commonly employed as formerly, being considered as a temporizing measure. It is claimed that electrolysis succeeds in about 60 per cent. of the cases, but these statistics are entirely fallacious on account of the different meanings attached to the word "success." The employment of electrodes of certain metals, capable of being dissolved by the current and deposited in the tissues as an oxychloride of the metal, has been found useful. The advantages are complete diffusion of the salts, the general stimulation of the current itself, and reaching the actual seat of the submucous pathological process. Cocaine is omitted in order to have the benefit of the patient's sensations.

Mycosis.—This condition is more of clinical than pathological interest. The teeth should be carefully looked over, and all dietetic and digestive errors should be corrected. Rheumatic and gouty diatheses seem to favor its occurrence. A 4-per-cent. solution of salicylic acid in alcohol, and solutions of corrosive sublimate and borax have been used, but the best result is obtained by the use of the electrocautery.

Enlarged Tonsils.—Removal by some form of guillotine should be recommended in persons under 16, unless they are "bleeders," or the tonsils very flat. A simple guillotine has been devised by ERMOLD, of this city. For fibrous tonsils which may bleed, igni-puncture may be employed. By a specially devised forceps, the tonsils may be removed in small pieces without risk of hemorrhage. It is my opinion that when the tonsils in the adult can be encircled with the hot snare, it is an excellent method. It is claimed that the deep injection of 30 to 60 drops of a mixture of equal parts of a 10-per-cent. solution of cocaine and of liquor ferri sulphatis makes the operation practically bloodless.

Acute Inflammations of the Tonsils.—Probably nearly all of these inflammations are due to infection. Where the infecting organism is the bacillus

coli communis, the disease runs an unusually chronic course, is extremely obstinate to treatment, and the deterioration of the general condition is out of all proportion to the local condition. A good plan of treatment is to scoop out all the crypts. Tonsillar inflammation may often be checked by the local application of guaiacol. Recurrent inflammation should lead to a careful search for a foreign body in the tonsil. Where there is suppurative inflammation, it is inadvisable to wait until the abscess points; for the symptoms can be relieved by incision, whether or not pus is yet present. Prior to the occurrence of suppuration, I have obtained the best result from the internal use of salol.

Dr GLEITSMANN: I can heartily corroborate what has been said, in the main, by Dr. NEWCOMB regarding the effect of bromide of ethyl. I have sometimes found that the anesthesia was extremely transient, but I consider it very much more convenient than ether. I can also confirm what has been said about the local anesthetic effect to be derived from injections of antipyrine. I have injected a 50-per-cent. solution of antipyrine, and have found it very satisfactory in relieving a case of obstinate and rather obscure neuralgia. We should not forget that good results have been claimed in the treatment of malignant growths by pyoktanin.

Dr. NEWCOMB: I have had no personal clinical experience with the bromide of ethyl, but an examination of the literature of the subject has convinced me that there is strong evidence in favor of its use.

Larynx and Trachea.—Dr. D. BRYSON DELAVAN: Intubation has long since become an established success in the treatment of acute stenosis of the larynx, and in the treatment of chronic stenosis this method is steadily growing in favor. Where the stricture is too narrow for the passage of the tube it has been suggested that it may be dilated, either by endolaryngeal operation, by the use of dilators, or excised after preliminary thyrotomy. A cutting dilator has been devised by Dr. WHISTLER, of London, for dividing the laryngeal cicatricial tissue, which is deserving of a general recognition. For pachydermia laryngis the electrolytic method is highly recommended. It is best applied by two fine platinum needles, placed side by side, and introduced for five minutes into the growth, under a current of 8 to 12 milliampères. The reaction is slight, and the improvement satisfactory.

In the treatment of benign neoplasms of the larynx, two new departures have been made: (1) An improvement in the ordinary laryngeal forceps, suggested by Dr. DUNDAS GRANT, and (2) the removal of papillomata and angiomata of the larynx by means of topical applications of alcohol, instead of by surgical removal. A frequently repeated spray of absolute alcohol is used for this purpose, and in at least three cases there has been complete cure. It seems probable that this treatment is destined to be of considerable importance. The applications are easily made, are non-irritating, and are apparently not followed by recurrence. This method may prove valuable as an early means of differentiating between a simple papilloma and a malignant growth.

It has been pretty clearly demonstrated that nothing short of surgery has proved of benefit in the treatment of laryngeal carcinoma. Recent operations for the relief of malignant disease of the larynx may be divided into: (1) Thyrotomy in the early stage of strictly endolaryngeal cancer; (2) complete laryngectomy for removal of more extensive disease of the interior of the larynx; and (3) complete laryngectomy with removal of diseased

glands in cases of laryngeal disease with glandular involvement. In the second class, the method of J. SOLIS COHEN has proved very successful. The severed edge of the trachea is attached to the edges of the wound in the neck, respiration carried on entirely from the outside, danger of inspiration pneumonia is greatly lessened, the subsequent use of the tracheal canula is dispensed with, deglutition is easy, and in three or four cases operated upon by this method very fair phonation has been secured without artificial means.

The operation of thyrotomy has shown the greatest advance. A preliminary tracheotomy is required, and, in the opinion of the writer, it should be performed, preferably several days before the main operation. In performing thyrotomy the tissues are divided down to the cartilage. In opening the cartilage, care is taken to keep the incision in the median line. It is very difficult to insure coaptation of this part; this is best obtained by interrupting the continuity of the incision through the cartilage, producing two angles which will serve to retain the parts after the operation. If the thyroid be calcified, it is best divided by a circular saw propelled by an electro-motor. This plan has proved very successful in the hands of Dr. CLINTON WAGNER, of this city. This physician has been in the habit of removing the tracheotomy tube immediately after the operation, and this has also been the practice of Mr. BUTLIN, of London. No harm has come from this practice. If the patient's head is held low over the edge of the bed, it will often be possible to feed him by the mouth almost immediately after the operation. The dressing should be applied directly to the surface of the wound by means of an insufflator, and it should consist of equal parts of iodoform and boracic acid. Tr. benzoin co. has been used.

Local applications of iodoform or of lactic acid have been known, in some instances, to effect a cure in tubercular laryngitis. One of the best methods of treatment is that devised by Dr. W. F. CHAPPELL. It consists in the submucous injection of creosote into the diseased laryngeal tissues. The immediate effects are less irritating and the ultimate results better than those heretofore proposed.

The surgery of foreign bodies in the larynx may yet receive new light from the application of the recent extraordinary discovery of the properties of the cathode rays.

Dr. ROBERT ABBÉ: Operations on the larynx for malignant disease must be considered to be very grave procedures. It is no easy matter to perform a thoroughly radical operation in cases of cancer of the tongue, or of malignant disease of the larynx. By the radical operation I mean the removal not only of the parts evidently diseased, but also the neighboring glands. Where malignant disease has already eroded the cartilage, it is hardly to be expected that by surgery we can prolong life more than a year or two. In most instances the disease recurs very promptly owing to the abundant lymphatic connections of the larynx. While laryngectomy may at times be very simple, at other times it is likely to prove exceedingly difficult and trying, and full of complications, such as arrest of respiration, or profuse hemorrhage. If it is possible to remove the glands approximately near the part, we have certainly gained a great deal by so doing. The SOLIS COHEN method, I think, will prove to be the best for treating the stump of the trachea. Feeding after laryngectomy is very simple if it be done by means of a catheter introduced through the nose. I have found no difficulty in packing around the ordinary tracheal tube a number of small sponges

with strings attached, and by this means I have effectually prevented the entrance of blood into the trachea.

I have been very much interested in the statement made by Dr. DELAVAN regarding the beneficial effect of applications of absolute alcohol to laryngeal papillomata. These tumors although benign, are extremely apt to recur after careful excision, and even after cauterization. I recall a case in which this recurrence has been most persistent after exceedingly thorough surgical measures.

During the last year I saw an interesting case of tracheal surgery. A man was brought to the hospital in a comatose condition. Tracheotomy was done, but without relief. On inspection through the wound it was found that the trachea was pressed together just above the bifurcation. A soft rubber tube was introduced and served to relieve respiration. The man rallied immediately, but two days later an aneurism ruptured and caused death.

Dr. W. F. CHAPPELL: About nine years ago Dr. A. H. SMITH and I removed the vocal cords by means of the laryngeal guillotine, for the relief of a case in which there was bilateral paralysis. About two years ago I had a case of papillomata of the larynx, in which I performed tracheotomy and left the tube in for nine months. Local applications were made to the part, and eventually recovery was complete, and there was no recurrence. I do not think that any one method can be considered the only one for the successful treatment of laryngeal tuberculosis; but certainly modern methods can hold out considerably more prospect of relief than formerly. The creosote method of treatment was brought before the profession last March in a paper read by me. The patients shown at that time had been greatly benefited, and all of them improved during the past year with the exception of one. If there is an extensive and rapidly progressing tuberculosis we certainly cannot expect anything but alleviation of the symptoms. I think there are two classes of cases of laryngeal tuberculosis, one acute or subacute, and the other more or less chronic. In the chronic form there is rather a chronic hypertrophic inflammation in the larynx, and ulceration does not take place until quite late in the disease. When it does occur, the ulcers are usually small and deep, and they show a tendency to cicatrize. Rest is an exceedingly important point in the treatment of laryngeal, as it is of pulmonary, tuberculosis. Dietetic and hygienic treatment are also very essential.

Dr. DELAVAN: I agree entirely with Dr. ABBÉ as to the seriousness of laryngectomy, and that it should not be undertaken by any one but a very expert and skillful surgeon. I was not aware that removal of a vocal band could be considered an established and successful operation in cases of bilateral paralysis.

SECTION ON ORTHOPEDIC SURGERY

February 21, 1896

NEWTON M. SHAFFER, M.D., Chairman

Fracture of the Neck of the Femur.—Dr. ROYAL WHITMAN: The first case I shall present is a fracture of the neck of the femur in a child 4 years of age, cured with a half-inch of shortening. The limp is distinct from that of congenital dislocation of the hip. I have collected about 10 cases coming under my personal observation of fracture of the neck of the femur in little children. At one time, as you are aware, it was stated that this accident did not occur in such young patients.

Congenital Dislocation of Hip.—Dr. WHITMAN:

Here is a case of congenital dislocation of the hip, which I exhibit to show the characteristic gait. You notice how prominent is the lordosis, even in a case of one-sided dislocation. This case shows well that even in a child like this, only three years of age, there is marked postural deformity. The limitation of abduction is already quite noticeable, and is liable to increase. A useful point in the differential diagnosis of congenital dislocation of the hip from rachitic and other conditions is that under extreme adduction and flexion the examiner can readily feel the neck and the head of the bone in its abnormal position.

Here is a little child upon whom I operated a few months ago. You observe that the postural lordosis has entirely disappeared, and the contour of the limb on the operated side is exactly like that of the normal side. There has been complete reduction of the dislocation, marked diminution of the shortening, and voluntary motion, to about three-quarters of an inch of the normal, obtained. At least two years are necessary to overcome the limp. What we are most afraid of is the limitation of abduction, and the tendency toward flexion, should suppuration follow the operation. No such accident has occurred in this case. Since the middle of last December all the treatment the child has had has been gentle, passive motions, made by the mother. The shortening, which is due to the downward displacement of the neck of the femur, is about one-quarter of an inch.

Intracapsular, Ununited Fracture of the Neck of the Femur, Cured by Mechanical Treatment.

—Dr. T. HALSTED MYERS: This man, 42 years of age, was first seen on September, 26, 1894. Examination showed five-eighths of an inch shortening, all in the neck of the femur. There was some swelling, bony crepitus on extension; atrophy of thigh and calf; pain on motion; flexion of 20°, from 180° to 160°; adduction, 20°; abduction, 0°; local tenderness and some telescoping. Nine weeks before, the patient had been thrown from a wagon and stepped on by a horse following him. He was not able to stand afterward, had a great deal of pain in his thigh, and noticed that his toe was turned in. He was in bed for several weeks then, in great pain, but wore no splints. The limb became flexed, but this symptom has now disappeared. I applied a long traction hip-splint, and advised him to stay in bed. As his business made it absolutely necessary for him to get about some, crutches and a high shoe on the opposite side were ordered. A month later, a pelvic belt was applied to immobilize the joint still more, and to exert some pressure against the trochanter, and so crowd the fragments together. On January 25, 1895, there was no telescoping, and joint pain had disappeared. For some time he had been driving about in his sulky, and I thought it was now safe to replace the long hip-splint by a short one, and did so. The short splint was removed in the middle of April, 1895. The shortening was then three-eighths of an inch; the joint firm and painless, and motion good. He to-night walks with scarcely perceptible limp, has no pain, and has over 90° of motion in hip.

THE SECRETARY read a letter from, and presented a patient for, Dr. F. TILDEN BROWN. The latter stated that the patient, a man of 65 years, with an intracapsular fracture of the femur, had applied for treatment at Trinity Hospital on January 23, 1896, 102 days after the receipt of the injury. The fracture had been caused by a fall down-stairs. Dr. BROWN asked for suggestions as to the best method of treating this case.

Dr. R. H. SAYRE: I should advise for this patient the wearing of a long splint with an abduction screw in addition to crutches. There will probably be a good deal of pain for a considerable time. Counter-irritation over the hip may relieve the pain.

Dr. V. P. GIBNEY: This patient seems to have an impacted fracture, and a fair range of motion. I think that with a little protection of that joint for awhile he will have a very good limb to walk upon.

Dr. WHITMAN: I recall a case of, double-crutch paralysis which was relieved within a week by substituting a hip-splint for the crutches.

Lorenz Operation; Suppuration.—Dr. V. P. GIBNEY: On April 3, 1895, this little child came to me with a congenital dislocation of the left hip. On April 26, I made the Lorenz incision, and found some difficulty in reaching the rudimentary acetabulum. The child did not take the ether well; there was more hemorrhage than usual, and altogether it was an unsatisfactory operation. The limb was put up in abduction and internal rotation. On the second day after operation the child's condition was critical, and on removing the dressings it was found that suppuration had occurred. By May 25 the parts were healing nicely, and on July 3 it was noted that the sinuses were closing, and there was little discharge. The range of motion was good, and the hip appeared to be pretty firm. She still wore the splint. On September 3, after having been without a brace for a few days, it was noted that there was no shortening, that the joint was firm, and the wound nearly closed. On October 16 careful measurements were made, and no shortening found except as measured from the umbilicus. Extension was about 20° short of the normal. Under nitrous-oxide anesthesia, the limb was pulled down again. On January 30, 1896, examination showed no real shortening, but half an inch of practical shortening. An examination on February 12 showed one-fourth of an inch shortening; no slipping of the head of the bone. Now the limb can be fully extended, and can be flexed to about 90°. I show this case because, in spite of suppuration, the result has been very fair.

Torticollis?—Dr. L. W. HUBBARD: This little girl was sent to me about three weeks ago with the statement that there was probably some spinal trouble. She had always been delicate, and had had several attacks of acute disease. About eight weeks ago she had a very severe attack of tonsillitis. A few days later she developed a peculiar deformity of the head. When first seen by me her head was bent downward and to the left side, with a marked contraction of the sterno-mastoid on the left side and the chin turned toward the contracted muscle. The parts were quite rigid, and motion was limited in every direction, particularly in rotation. The statement was made that there was more motion of the head in the morning than in the afternoon. After she had been kept in bed for twelve hours or more, there was certainly a little more motion, but the deformity persisted. The mother told me that the child had been in rather poor health for some time previously; that she would stop occasionally and rest her head on her hands, and that she sometimes cried at night. I came to the conclusion that the case was one of Pott's disease high up in the cervical region. I measured her for a spinal brace. A few days later she was brought to me, and I found that the deformity had almost entirely disappeared; that motion was free in every direction. It has remained so up to the present time.

Dr. WHITMAN: I have seen a number of these cases, and have made the diagnosis of diphtheritic

paresis. The position described by Dr. HUBBARD seems to me very characteristic of this condition. The peculiar droop of the head is exceedingly characteristic. I have seen about 5 of these cases.

Dr. GIBNEY: The case seems to me to be one of intermittent or malarial torticollis. Some years ago, Dr. HOLT collected quite a number of these cases. The history of a morning remission, and the fact that the child had improved under tonic treatment, led me to think that the case is one of malarial torticollis.

The Chairman, Dr. SHAFFER: I have seen several patients presenting symptoms of this kind after the mumps. In two or three instances, the symptoms persisted for several weeks. It seems as though any acute inflammation in or about the pharynx is liable to give rise to a temporary torticollis. But they all resemble the true torticollis as a rule, and not the torticollis of cervical Pott's disease. In the latter we have a prominent, elongated, sterno-mastoid in a state of true reflex muscular spasm, with the chin rotated toward the elongated muscle. In true torticollis the chin is rotated in the same direction—*i.e.*, toward the elongated muscle with a structurally shortened sterno-mastoid as the cause of the deformity.

Treatment of Congenital Dislocation of the Hip.—Dr. ROYAL WHITMAN: That this condition is not very uncommon is shown by the fact that in the year 1895, 51 new cases of congenital dislocation of the hip were recorded in the books of the Hospital for Ruptured and Crippled. The anatomical conditions to be expected in this deformity are as follows: An indication of an acetabulum is always to be found, and it may be nearly normal in shape. The head of the bone is usually flattened from side to side; the neck is shortened and depressed; the ligamentum teres is usually absent after the age of 5 years. These changes are progressive, in character under the influence of weight and pressure so that whatever is to be done must be undertaken as early as practicable. The question of treatment is to be decided, not by the present condition of the patient only, but by the knowledge of the probable ultimate result. Congenital dislocation of the hip is practically always a dislocation of the dorsum. The effect of the deformity is to cause lordosis and a prominent abdomen, and a peculiar rolling and waddling gait. When the dislocation is on one side only, the waddling gait is replaced by a peculiar limp, and the pelvis is twisted, so that the anterior superior spine of the dislocated side is always below and in front of the other. A double congenital dislocation of the hip must make a laborious occupation impossible. Fortunately most of these dislocations occur in females. There is a probability that the disability will increase as time goes on. The object of splint treatment has been to draw the head of the bone into the neighborhood of the rudimentary acetabulum, and while the patient is under treatment the tendency to progressive deformity may be checked, but permanent cure by such methods is practically impossible. The only effective treatment is the actual replacement of the dislocated bone in its normal position. The conception of the treatment is HOFFA'S; the *technique* of the operation is due to LORENZ; hence it is proper to speak of the operation as the Hoffa-Lorenz operation. It is not to be expected that a perfect joint can be immediately obtained by such an operation; it is simply claimed that the compensatory deformity of the body may be made to disappear, that stability will be increased, the disability greatly reduced, and that there will be progressive change toward the normal rather than toward the abnormal. If the head of

the bone is securely held in the new position, if there is a range of motion of 45° and contractions are absent, the operation may be considered to be a success.

I have already this evening presented a little patient upon whom I have performed this operation. The case was one of typical congenital dislocation of the left hip. An incision was made to the outer side of the anterior superior spine, the fascia freely divided, and the capsule exposed and opened. The head of the bone had a depression on its anterior surface; the neck was short; the ligamentum teres was absent. The rudimentary acetabulum was enlarged to its normal size. The limb was placed in a slightly abducted position, and maintained there by a plaster-of-paris bandage. The child began to walk about on the leg at the end of six weeks, and now she runs about all day without pain or fatigue. LORENZ considers a range of motion of from 15° to 45° a good result; hence the result in my case must be very good. After one or two years the limp may be expected to become imperceptible. The operation is somewhat difficult, as the wound is deep and the parts not readily exposed to view. The operation should be done as rapidly as possible. The capsule should be freed and cut through, particularly at its upper attachment. The chief obstacle to reduction in young children is in the capsule. The new acetabulum must be large and deep.

The only other method of treatment entitled to consideration is that of PACI—the placing of the head of the bone in an approximately correct position without an open operation; but the difficulty in replacing the bone after the open operation shows that its sphere must be much more limited than its originator claims. LORENZ insists that the fourth movement of PACI must inevitably dislocate the head of the bone forward and that a more effective method is by flexion; extreme abduction, inward rotation, and pressure toward the median line. Both LORENZ and HOFFA do not favor the open operation in children under two years of age; hence manipulations recommended by PACI and LORENZ may be advised in the few cases coming under observation at an early age.

Dr. GIBNEY: I have followed the case reported by Dr. WHITMAN with a good deal of interest. The general impression seems to be that these cases of congenital dislocation do not suffer in after-life except from the uncomfortable gait. I have recently seen a lady of about forty years who had had, up to a few years ago, very little discomfort. When I saw her she was suffering a great deal from pain in the gluteal region, following even a little walking. She is not a very stout person. I have been unable to find any rheumatic element in this case. Strange to say, this woman experienced relief from the application of an abdominal belt with firm perineal straps coming down the thigh in the shape of a spica. She has found it necessary to wear this appliance even at night.

I have long been convinced that if one can do a thoroughly aseptic operation, and can succeed in securing a good acetabulum, the result should be perfect; but there are many difficulties in children over five or six years of age in getting the bone down to the proper place. I believe that the success in Dr. WHITMAN's case depended largely upon the aseptis secured, and the early discontinuance of apparatus and the resort to passive motion. I am told that LORENZ himself employs very considerable force in bringing the head of the bone down into position.

Dr. R. H. SAYRE: The reader of the paper made the statement that mechanical treatment was prac-

tically useless, but comparing a recent operative case presented before this section with one presented by me at the same meeting, which I had treated mechanically, I am led to think that the latter had the better gait. I have only operated in one case, but in that one I found great difficulty in bringing down the head of the bone into the acetabulum, chiefly, I think, from lack of familiarity with the operation. It is too early to speak of the result with any positiveness. The case is one of double congenital dislocation, and the limb on the operated side is now three-fourths of an inch longer than its fellow. The operation was followed by superficial necrosis, probably owing to the violence of the manipulations. In this case I performed the Paci manipulations, and made the limb distinctly longer, and there was not the slipping of the head upward that had existed before. After I had cut down on the head of the bone, I found it was not near the acetabulum, and the apparent fixation was due to resistance of the capsule.

Dr. JACOB TESCHNER: I have just seen a man, about thirty years of age, who has a congenital dislocation of the hip. He was able to walk very poorly up to about the age of ten years, but since then he has been able to walk extremely well, although there are two inches of actual shortening.

Dr. A. M. PHELPS: In my opinion, there has never been a case of congenital dislocation of the hip cured by mechanical means except those which have occurred at birth, and having been recognized in time, the head of the bone has been placed in normal position. I am sure that we shall soon operate upon every case of congenital dislocation of the hip coming to us within a certain age, and that we shall not treat them unless they submit to the operation—in other words, we shall abandon mechanical treatment; and I think we should do so. I have followed one case for 17 years; she has 7 in. of shortening now. When the head of the bone has slipped up well underneath the attachment of the glutei muscles, it means extreme shortening for life. Double congenital dislocation results in terrible deformity, which mechanical means cannot remedy. I have operated upon five cases, the last one, five weeks ago. In this last case there was an entire absence of the acetabulum; there was hardly anything to indicate that there had been an acetabulum there. Such a case a few years ago would have been treated by mechanical means, yet I cannot understand how such a case could be benefited. In the other cases there was a small acetabulum, and a very redundant capsule. I made a new acetabulum, and the head of the bone has remained there. If we have infection of the wound, or other accident, we should not blame the operation. HOFFA got infection in the case upon which he operated in this country. HOFFA says he refuses to operate after the age of 10 years. LORENZ will operate at any age. All my cases have been under six years of age. In one case of diastasis I performed a modification of the operation suggested by HOFFA and LORENZ. The neck of the bone was entirely gone. I cut off the great trochanter, and cut out a piece of the pelvis, so as to make a place in which the bone should rest. Between the two bony surfaces I turned in a piece of fascia, so as to prevent bony ankylosis, and thus secure a false joint. I have resorted to the same procedure in cases of excision of the hip. I now have a case in the City Hospital which was treated in this way.

Dr. HENRY LING TAYLOR: I think this paper and discussion mark a decided advance in our knowledge of the treatment of these affections. It would seem

to me that there must be considerable value in submitting patients to thorough extension and abduction with the long median traction splint as a preparatory measure to the operation. After a number of weeks of such treatment it should be easier to place the head of the bone in the socket at the operation. I am under the impression that similar preparatory treatment has been recently recommended by LORENZ.

THE CHAIRMAN, Dr. SHAFFER: On different occasions I have referred, both here and elsewhere, to several cases of congenital dislocation of the hip, in which great and permanent benefit has been derived from the use of some form of ambulatory traction, with the use of a specially devised pelvic belt, making firm pressure over the trochanter major. An artificial joint has been formed in this way in the course of two or three years. I especially recall a patient in which the late Dr. HENRY B. SANDS and I made an attempt, in 1878, to reduce a dislocation of this kind in a child of two years. Under ether we made repeated and prolonged attempts to replace the head of the bone, and failed. Our manipulations resulted in a tolerably acute inflammation of the parts involved in the manipulation, of which nothing was thought at the time. A long-traction hip splint was applied immediately after the effort, and a "surcingle" belt, with a specially devised pad, was used, so as to make strong lateral pressure over the trochanter. At the end of six weeks Dr. SANDS and I were surprised to find a great degree of solidity about the formerly easily telescoped joint; and the traction recumbency and lateral pressure were continued. At the end of a few weeks more the patient was allowed to walk about in her apparatus, and at the end of a year there was apparently a solid artificial joint. All telescoping and instability were gone, though the trochanter was still an inch above Nelaton's line. Protective apparatus was continued another year, when the patient walked without any perceptible limp, though there was just an inch of shortening. In thinking over this case afterward it occurred to me that the prolonged manipulation and the resulting inflammation were factors in producing the early and satisfactory solidity of the artificial joint. Shortly before Dr. SANDS's death I proposed to him to emphasize the irritation of the parts by introducing a specially prepared instrument subcutaneously, and first denuding the head of the femur to make forcible traction (after dividing all the superficial resisting tissues), and to then produce an equally emphatic irritation at the point opposite the newly located head of the femur on the pelvis. This was to be followed by traction and the "surcingle" lateral pressure for a period of weeks in bed—the formation of an artificial joint being hoped for in a comparatively short period.

The operation was not performed, but a few weeks ago I submitted the question to the members of the consulting staff of the Orthopedic Hospital, and it met with their approval. I shall soon report my first case, and if it should prove to be successful it will certainly be applicable to a very considerable number of patients to whom the Lorenz operation is not adapted, and it will make the open operation almost entirely unnecessary.*

*To the Editor A. M. S. B.: After I had closed my remarks, as above, proposing this procedure in congenital dislocation of the hip, I was informed by two or three members of this Section that BRADHURST of London had already performed this operation. As I was uninformed on the subject, I asked for further information. Dr. WHITMAN has kindly forwarded me BRADHURST's pamphlet "Observations on Congenital Dislocation of the Hip"—2d edition, 1895—from which I quote as follows:

"In April, 1895, I divided with Mr. HENRY BAKER the trochanteric muscles and the adductor longus . . . having previously probed the acetabulum to ascertain its depth. The femoral head was then dislodged and drawn

Dr. WHITMAN: The method just suggested by the chairman is similar to that employed by Mr. BRADHURST. I cannot see any advantage in such treatment over the open method, by which one may see the exact condition present; in fact, our knowledge of the obstacles usually present proves that it must be at best an ineffective treatment. It is simply a question of operating in such a way as to avoid suppuration. I believe that the majority of patients suffering from congenital dislocation of the hip are liable to be weak, noticeably deformed, and subject to disability and pain in after-life, and my reason for this is that I have observed rapidly increasing disability and shortening during adolescence and even in childhood. The operative case treated by a European surgeon, referred to by Dr. SAYRE, was an absolute failure, and hence should not be compared with other cases. Mechanical treatment, I said, was only useful in a certain small number of selected cases, and even these could hardly be expected to be cured. LORENZ does not employ previous tenotomies and violent manipulations in young patients, and he advises preparatory treatment by strong extension.

THE NEW YORK COUNTY MEDICAL SOCIETY

Stated Meeting, February 24, 1896

EDWARD D. FISHER, M.D., President

Conservative Surgery Upon the Uterus and Annexa by the Vaginal Route.—Dr. H. N. VINEBERG read a paper with this title. See p. 316.

Dr. R. W. PRYOR: I have always held that the nonsensical resection of pus foci and the rupturing of tubes beneficently sealed by nature were not legitimate. Our route for doing this work has been changed, but there is no reason for abandoning our principles of practice. It has always seemed to me entirely improper to open the abdomen for cystic ovaries, small hydro-salpinx, and broad ligament cysts. An incomplete operation through the vagina, abandoned because of faulty diagnosis, does less harm than such work through the abdomen. Pyosalpinx cannot be removed through the vagina as nicely as through the abdomen. I fail to see the advantage over celiotomy of separating the bladder from the uterus to remove appendages. If I could not complete my operation through the vagina by work through the cul-de-sac, I should at once perform celiotomy. Behind the uterus a most thorough ocular exploration of the pelvis can be made with the patient in the Trendelenburg position.

I think we can divide all diseases of the uterus and appendages into two classes: (1) Those which remain pelvic; and (2) those which may be classed as abdominal rather than pelvic. For inflammatory pelvic disease, I always begin by an exploratory operation through the vagina. Where pus tubes are attached high up to the pelvic brim, I should

down. Extension was made on the fourth day . . . and the head of the femur was then firmly fixed in the acetabulum, from which there was no tendency to escape." (Page 15.)

Again: "When the acetabulum is so much filled up that it is impossible for the caput femoris to find a lodgment, I remove with a specially curved gouge . . . so much of the deposit as I can subcutaneously, so as to deepen the cavity sufficiently to retain the head of the femur." (Page 16.)

And he closes his paper as follows: "The head of the femur may be drawn down after the trochanteric muscles have been divided, and with or without the gouge it may be safely and permanently restored to the acetabulum."

It will thus be seen that BRADHURST's operation consists in deepening the acetabulum subcutaneously and in reducing the dislocation after the division of certain tissues, imitating HOFFA and LORENZ, but avoiding their open incisions. Nothing is said of denuding the head of the femur, or of attempting to secure an artificial joint in the manner I propose. Either I must have been greatly misunderstood, or my critics were misinformed as to BRADHURST's operation, and unless I am confronted by other evidence I shall feel fully justified in calling the procedure I have described as my own.

March 1, 1896.

N. M. S.

prefer the abdominal route. The dislike to an abdominal scar is a matter which has no place in a scientific discussion. I believe that cases of intravisceral suppuration, beginning in the pelvis, should be approached by the vaginal route. So long as ovarian cystomata and fibroids are mostly pelvic, the vaginal route may be employed; in other cases celiotomy is the proper operation. I have done a good many vaginal sections in the past few years, and my experience would lead me always to do vaginal section as an exploratory procedure; but where complete work is sought, the abdominal route is indicated about twice as often as the vaginal.

Dr. H. J. BOLDT: By conservative work we formerly understood plastic surgery on the pelvic organs, thereby saving their utility. If that is the position of the reader of the paper, I would say that I consider it is usually more conservative to work by the abdominal than by the vaginal route—in other words, if there is a Fallopian tube or diseased ovary which demands a resection in order to restore it to usefulness, I claim that such work can be better done by abdominal section. If, however, it is meant that a conservative operation should be practiced on the pelvic contents with the removal of a certain form of disease, whether it be a pyosalpinx or an ectopic gestation, I grant that such a condition may be operated upon just as well through the vagina, thereby avoiding the risks of abdominal section and future inconvenience arising from operating by the abdominal route. I am agreeably surprised to find that Dr. PRYOR has very decidedly changed his views, or else I have in the past misunderstood him. We all know that in cases of unilateral disease of the annexa high up in the pelvis, it is more desirable to operate through the abdomen than through the vagina; or, if there is a large fibroma, it is better to operate through the abdomen. All disease which can be reached in the pelvis by the vagina should be attacked in this way, except in the cases occurring among nulliparæ, where the size of the canal practically precludes the use of this method. It has been said this evening that cleaner work can be done through the abdomen than through the vagina, and this is true to a certain extent. In cases of bilateral suppurative disease of the annexa we must admit that the uterus is not only useless but detrimental; hence the uterus is to be removed also. Statistics show that injury to the intestine is hardly more frequent by the vaginal than by the abdominal route.

Dr. E. H. GRANDIN: We are all agreed that conservatism in surgery is a desideratum, and hence it seems necessary to broaden the discussion a little beyond the limits of the paper. There seems to me that there is no question that for exploration the vaginal route should be selected whenever possible, if the operator possesses an average hand and the vagina is of the average size. Under these circumstances the expert finger can detect disease quite readily, and the operator can determine whether or not it is feasible to remove it by the vagina. If not, the woman has not been made worse by the preliminary vaginal exploration. To my mind, vaginal section is always indicated in cases of disease of pelvic structures within the pelvis. If, however, the disease extends above the pelvic brim, then, beyond doing what is possible from below, the operation must, I should say, be completed from above. If we have a pus tube or an ovarian abscess low down in the pelvis, it is usually extremely easy to make an incision into the vagina and remove that pus tube, or that ovarian abscess, provided always there be

not present much pelvic peritonitis, resulting in adhesions above the pelvic brim. If we have adhesions high up, or a complicating appendicitis, then I must contend that sight aids touch—in other words, that the proper procedure is to finish that operation from above. The incision need not be a large one. Where we are dealing with large fibromata above the pelvic brim, if I propose to remove the entire uterus and appendages, beyond separating the bladder in front and the rectum behind, and clamping the base of the broad ligament, I do nothing further from below. After all, it is simply a question of the locality of the disease—whether the diseased structures are readily accessible from below or above. The risks associated with the abdominal incision as compared with those associated with the vaginal incision, it seems to me, are much magnified. I believe there is just as much risk from sepsis, if not greater risk, in operating through the vagina as through the abdomen, for we all know how extremely difficult it is in practice to sterilize the vagina. We know, however, that in 100 cases of vaginal section performed by an expert the mortality need not be more than half a per cent. From my experience, it seems to me that ventral hernia should not be a complication of abdominal section *if the abdominal incision be properly sutured*. Shock I have found to be the same after the two operations, other things equal. In the average case, there is apt to be just as much pain after vaginal section as after abdominal section. I know that convalescence should be just as protracted, particularly where the clamp is used instead of the ligature. To allow such a woman out of bed in ten or fifteen days does not seem to me good surgery, and moreover, if clamps have been used, to discharge a patient from the hospital at such an early period is dangerous; for there is a large sloughing mass which is liable to give rise to infection, if the patient be not skillfully cared for.

Dr. E. B. CRAGIN: We should find a common ground on which we may all stand. It seems now to be pretty plain that masses high up should be attacked from above; masses low down may be attacked from either below or above. Conservatism may be looked at in two ways: (1) As to the strength and vitality of the patient; and (2) the saving of the pelvic organs. As to the conservation of the strength of the patient, the vaginal route has a distinct advantage in two classes of cases. Where there is a bad, infected uterus with puerperal fever, my experience is that the shock of the operation through the vagina is very much less than through the abdomen. Again, the general depression from large collections of pus operated upon through the vagina or above is less by the former route. The reason for this is that the sepsis is overcome by drainage of the abscess before adopting further operative procedures. If we desire to save the child-bearing capacity of the woman, I think it is more easily done by abdominal section, because it involves delicate and accurate surgical work. My experience in vaginal work has been almost entirely with the posterior incision. In cases of acute inflammation of the appendages, prolapsed and adherent, the breaking up of the adhesions through the fornix and draining the cavity appears to be conservative. Conservative surgery can also be done in selected cases in which there are small fibroids.

Dr. VINEBERG: I do not think those who have spoken have touched upon the points I endeavored to make in the paper. I cannot think also that the speakers have had much experience with the operation, as any one who has done the operation through

the anterior vaginal incision must know that it is, if anything, easier to resect the ovary under these circumstances than through the abdominal incision, after the ovary has once been delivered through the incision. I only intended to bring up the question of operating through the vagina for minor diseases, or in the early stage of pelvic disease. No ill results have been reported as having followed the separation of the bladder from the uterus. In the majority of cases in which the conservative surgery is indicated, there is backward displacement of the uterus which gives rise to almost as many symptoms as do the tubes and ovaries, and this displacement is treated at the same time as are the other diseased conditions. I have seen hernia follow abdominal operations done by the best operators and in the best hospitals, and hence this is a matter for serious consideration in cases of minor pelvic disease.

Non Nocere in Obstetrics.—Dr. JULIUS ROSENBERG: In obstetrics the axiom, *non nocere*, is of special significance. The birth of a child is a physiological act, yet it is often changed into a pathological condition as a result of ill-directed zeal on the part of the medical attendant. I hold that puerperal infection is an absolutely avoidable complication of childbirth, no matter what the surroundings. Before 1847 the mortality from puerperal infection in the Vienna General Hospital was 10 per cent. Then SEMMELWEIS restricted the number of examinations, and required the washing of the hands in chlorine water. At the end of two years of this practice the mortality had been reduced to $1\frac{1}{2}$ per cent. This fact alone is exceedingly instructive. It cannot be denied that the vagina of every woman contains micro-organisms, but these are not pathogenic. It has been demonstrated that not only is the vaginal secretion in normal pregnancy free from pathogenic germs, but it has been shown that the vaginal secretions possess a germicidal power. It has also been shown that syringing the vagina with an antiseptic solution destroys this germicidal power; hence the preliminary antiseptic douche is actually harmful. LEOPOLD and GOLDBERG have published the statistics of several thousand cases of labor treated both with and without antiseptic douches, and their best results were obtained by omitting the preliminary douche.

Personally, I never employ vaginal douches except under strict indications, and every one of a considerable number of cases during the past few years has recovered. I have just seen a case of quick normal labor, in which the physician ordered carbolic acid douches three times a day, with the result that the woman now has a pulse of 140 and a temperature of 104, and all the symptoms of acute sepsis. It is true that the surroundings were not favorable; but I am sure that there were no indications for the douching, and I think that it was directly responsible in this case for the sepsis. I have observed during the last four years six cases of fibroids in the pregnant uterus. In five labor terminated without serious complications. All the mothers recovered, and five children survived. These statistics are much superior to those reported after operative interference. I think that with few exceptions these cases are best left alone. A growth which may be of alarming size during pregnancy, may become post-partum quite insignificant; hence the argument that the woman is operated upon partly with a view to ridding her of the tumor does not have much weight. I cannot verify the statement, after a careful search through the literature, that fibroid tumors seriously complicate many cases of pregnancy.

Dr. S. BARUCH: The most damaging antiseptic that exists at present, it seems to me, is that regarding abortion. I understand that the method now adopted by the advanced gynecologists is to empty the uterus, and curette everything out. My own experience is entirely opposed to such a method, because I regard the uterus as usually competent to expel the secundines, and any interference with the uterus is apt to be punished, just as it is when we use vaginal injections in the puerperal period. I recall two illustrative cases. The first one was one of abortion at the fourth month, in which by simply tamponing the vagina the secundines were expelled, and the woman made an excellent recovery. In another case, seen at about the same time, in which there was a fibroid, the patient was sent to a hospital, and the contents of the uterus removed. A few days later the patient died of sepsis. I hold that after labor, as the uterus is suffering from traumatism, there is danger of infection from this unnecessary use of the curette.

Dr. A. F. CURRIER: Many of us were taught by the instructors in obstetrics that "meddlesome midwifery is bad." This familiar aphorism, it seems to me, has outgrown its usefulness. There is no experienced practitioner who can truthfully say that we can do without the principle of antiseptic. There can be no question about the value of cleanliness or of antiseptic in the prevention of puerperal infection. There are certain conditions which the obstetrician must take into account, and which appear to have been overlooked by the reader of the paper. For instance, the presence of a vaginal septum may be responsible for puerperal infection. Again, in a large number of cases careful investigation will show open wounds which may readily serve as entrances for infection. By closing these wounds surgically, one can prevent a great deal of infection. Where there is gonorrheal infection, I do not think antiseptic can be too strictly carried out. In most of the cases of fibroid tumor complicating pregnancy that I have seen, the result has been an abortion. Where the tumor is within the uterine canal, this will usually be the result. In the cases in which the fibroid tumor is free in the pelvis, it is certainly not proper to allow the pregnancy to go on naturally.

Dr. GRANDIN: To speak to this paper is simply to acquiesce in the statements made therein with possibly the exception that in cases of fibroids complicating pregnancy, the rule should be to interfere with those which obstruct the progress of the child. If to-day there is one distinct advance in obstetrics above all others, it is the recognition that a clean hand and thorough emptying of the uterus with the finger place the woman once and for all beyond the grasp of sepsis, and of disease of the uterus, tubes, and ovaries in the future. I wish, therefore, to protest most decidedly against the remarks of Dr. BARUCH. If a woman becomes septic after the emptying of the uterus it is because she has been made septic, either by a dirty finger or dirty instruments. When this fact is recognized and practiced, there will be fewer gynecologists. I do not plead for rash haste, but I do ask for less *indolence* in treating incomplete abortion.

Dr. BARUCH: I knew very well that I would stir up a hornet's nest when I said what I did, but I would call attention to the fact that quite an eminent authority in obstetrics has recently published a paper advocating the views I have just expressed. He supports his paper by statistics showing that overactive instrumentation in obstetrics is dangerous. I think time will prove that I am correct.

Dr. ROBERT A. MURRAY: I believe in asepsis, but we cannot have asepsis without antiseptics. This is true in every department of surgery. Absolute surgical cleanliness of the hands cannot be secured without antiseptics. Why do we hear so much about meddlesome midwifery and so little about meddlesome surgery, or meddlesome medicine? The reason is that puerperal fever has been caused in ninety-nine cases out of a hundred by lack of interference. In the case quoted by Dr. BARUCH, does he mean to say that the patient died *because* the uterus was emptied? No, she died of sepsis. Regarding the use of antiseptic injections prior to labor I would say that microscopical investigations show many germs in the vagina, and as there must be more or less laceration of this canal, there must be danger of sepsis, if these organisms are not cleared away. It is especially important to clean the external genitals, because even though the finger be clean, it is apt to become infected if the external genitals have not been cleaned. How seldom is a pad put over the vulva until after the delivery of the placenta, and even after the entire washing of the patient; hence sepsis may occur even though the physician has been careful about securing asepsis before and during labor.

Dr. ROSENBERG: I addressed my remarks especially to the general practitioner, particularly to the physician who has to practice obstetrics without the aid of a carefully trained nurse. Vaginal douching is considered in our hospitals to be absolutely requisite. Under careful nursing the patients may of course recover in spite of vaginal douching, but it is different among the tenements. Here it is often not possible to minutely examine the genital passages, and give frequent douches. I certainly believe in antiseptics or asepsis, but I also believe that in the conditions that I have mentioned antiseptics should be restricted to the examiner's hands and the woman's genitals. It has been shown again and again that auto-infection is nothing but a myth. As regards the treatment of abortion, I am more conservative than Dr. GRANDIN. If nothing septic is carried into the woman, I see no reason for it arising if we wait a few hours. If the delay extends twenty-four or forty-eight hours, I should consider it wrong to remain inactive, and I should proceed to dilate the canal and remove the ovum. In cases of complicating fibroids, of course where a fibroid blocks the canal, it is proper to interfere; but this was not the class of cases to which I especially referred in my paper.

Iodine and Iron Hypodermatically in Severe Anemia.—MENELLA (*Wien. med. Presse*, 1896, XXXVII, p. 66)

The author has had good results from the simultaneous use of iodine and iron administered hypodermatically, according to the method of DURANTE.

The iodine solution he prepares as follows:

Iodine 0.2 gme. (3 grn.)
Potassium Iodide sufficient for solution.
Distilled Water 20 gme. (5 fl. dr.)

And the iron solution thus:

Iron and Ammon. Citrate 1 gme (15 grn.)
Distilled Water. 10 to 20 gme. (2½ to 5 fl. dr.)

At one and the same sitting 1 c.c. (16 min.) of the first solution is injected into one of the buttocks, and immediately after an equal quantity of the second solution into the other buttock. These injections may be repeated once, or even twice daily. Their therapeutical effect is said to manifest itself promptly.

CORRESPONDENCE

PHILADELPHIA LETTER

(From The BULLETIN's Special Correspondent)

Dr. WELCH, in his annual report of the Municipal Hospital, protests against its removal to some suburban location, which has been under consideration. His principal objection is that the patients brought to the hospital are acute cases, and many of them so dangerously ill that transportation for so long a distance would greatly jeopardize their lives. There were 1191 admissions last year, the largest since 1872. This number was largely made up of cases of diphtheria and scarlet fever, the rest including the other contagious diseases. There were 302 cases of diphtheria treated with antitoxin, with 85 deaths, making the death-rate 28.14 per cent. The mortality among the patients that did not receive antitoxin was 25.99 per cent. These cases require to be more fully analyzed before any positive opinion can be expressed in regard to the real value of antitoxin serum in diphtheria. The cases are sent in from all sections of the city, and often two or three days elapse after the onset of the disease.

A special meeting of the College of Physicians was held February 19, 1896, to discuss "Brain Tumors." Drs. MILLS, DERCUM, and LOYD discussed the neurological standpoint; Drs. NORRIS, DE SCHWEINITZ, and THOMSON, dwelt upon the associated eye symptoms, and Dr. BURNETT, those of the ear. Dr. KEEN discussed the surgical, and Dr. DA COSTA the medical aspects.

Prof. DOCH, of the University of Michigan, has finally declined to accept the Chair of Pathology at the Jefferson Medical College. The college has purchased a building adjoining the school, preparatory to establishing a pathological laboratory.

Dr. MORRIS J. LEWIS has been elected a trustee of the University of Pennsylvania, to fill the vacancy caused by the resignation of Dr. W. HUNT.

At the stated meeting of the Philadelphia County Medical Society held February 26, 1896, with Dr. J. C. WILSON in the chair, Dr. ANDERS read a paper on *Typhoid Fever as a Complication and a Sequel of Influenza*. He reported three cases which began with influenza and developed typhoid fever; one did not show signs of typhoid until the fourteenth day. He thinks influenza predisposes to typhoid fever; he draws this conclusion from the cases reported in this and a previous paper.

Dr. WILSON thought that influenza occurred during the incubative stage of typhoid fever, which is often very long, and that this may explain some of the cases of rapid onset. He does not think that the one predisposes to the other.

Dr. COHEN thought that it was well known that they occurred together, but that they had no bearing on each other. He called attention to the occurrence of hemorrhages from the nose and bowels in influenza, and that this may be exaggerated by typhoid fever.

Dr. KEEN presented two cases of *Plastic Nasal Surgery*—the first an artificial nose, the second a saddle-shaped nose; remedied by the insertion of a silver-gilt plate. In the first case the entire nose was removed for malignant disease. The wound healed readily and an artificial nose of aluminum was tried, as the surface was so large that to make a nose by the flap method was thought impracticable. The aluminum nose was

held below by a flange and above by a spring catch which was worked through the nose by a wire, by means of which the patient could easily remove it. After three months the tears dissolved out the soft solder which had to be used with the aluminum, and this was replaced by a coin-silver nose, which has given very good satisfaction. The second case was one of deformity produced by a fracture, where the entire bridge of the nose was gone. He made a wax nose to suit the patient and then took a plaster cast, from which he made a silver plate that was gold plated. He made a transverse incision, loosened up the skin, placed the plate under, and closed the wound. The plate had some holes made around the edge to allow granulating tissue to pierce and hold it in position. It has been in place now for ten months and gives perfect satisfaction.

Dr. ROBERTS said that the operation he usually did was to loosen up the skin with a tenotome through the internal surface of the nose, to separate the bones, and split them up with a chisel and to hold them in place with pins. In syphilitic cases where there was no septum he took a piece from the upper lip, which made the nose appear better as it lessened the size of the upper lip.

Dr. LAPLACE makes an incision directly over the bridge of the nose, which leaves a very small scar; then he dissects up the tissue, separates the bones except at their upper attachment. He inserts two strong sutures under the bones, places a gauze pad between the two ends of the sutures on each side, and ties them over the pads.

Dr. HARE said that aluminum was destroyed by all alkaline secretions.

Dr. LAPLACE read a paper on *The Bloodless Resection of the Rectum*. He placed deep interrupted sutures around the rectum just above the point of incision. He then removed the rectum in the usual way, and when this was done he removed the sutures. To restore the sphincter after the above operation he would make a Y-shaped incision in front and behind the anus, and then pull with forceps the V of the Y inward. He would close the incisions, beginning at the tail of the Y. He has done the last operation five times and has gotten good results in each case.

Dr. KEEN asked whether there was not danger of injuring the small intestines when passing the deep sutures.

Dr. ROBERTS did not think that two operations were necessary.

Dr. LAPLACE, in answer to Dr. KEEN, said that by gently pressing the protruding peritoneal sac the intestines could be easily felt and replaced.

Dr. HENRY exhibited a specimen of *Filaria Sanguinis Hominis* from a case of chyluria. His patient was 28 years old, had never been out of this country, and had spent all of her life, except two years, in South Carolina. He showed a specimen of urine and had slides made of the blood taken from the patient at night placed under microscopes exhibiting the *filaria nocturna*.

Dr. TYSON called attention to the fact that the *filaria* were found in the blood drawn during the day, if the patient slept then instead of during the night. He had examined the urine of cases of chyluria without finding the *filaria*.

Dr. STENGEL thought that the *filaria* were so few that they were often overlooked.

Dr. SPIVAK showed a case of *Intrauterine Amputation of the Hand*. The child's mother was subject to epileptic attacks; she had had five miscarriages before the birth of this child—which was normal.

Dr. MANN thought, after examining the stump,

that it was a case of deformity, as the hand was not expelled at the birth of the child.

The stated meeting of the PHILADELPHIA PATHOLOGICAL SOCIETY was held on February 27, 1896. Dr. MUSSER was in the chair.

Dr. HARE presented a *Fibroid Heart*. It was taken from a large, robust man, dying soon after admission into the hospital with all the symptoms of heart failure. The cavities were very much dilated and filled with clotted blood.

Dr. HARE also presented two specimens of *Gastric Carcinoma*. Both of the cases had had gastro-interostomy performed. The first died six days after operation, with good union at the point of anastomosis. The Murphy button used was found about five feet from the ileo-cecal valve, freely movable. The second case died in 24 hours after the operation, more from toxemia than from surgical shock.

Dr. H. N. WILLIAMS, of Buffalo, presented a specimen showing a rare *Anomaly of the Aorta*. This was taken from a large, robust man, 58 years old.

He had been in good health until a short while before death, which was very sudden. There was no history of syphilis. The post-mortem showed the left pleural sac filled with clotted blood, which had escaped from the ruptured aneurism. The aorta was atheromatous, the heart enlarged, the mitral valve patulous, and the valves thickened. The kidneys showed nephritis. The aorta seemed to be double from just below the origin of the subclavian artery, where there was the small, ragged opening of the left and smaller aorta. There were two channels separated by a septum from this opening downward, each forming one of the iliacs. Around these two aortæ was a dissecting aneurism extending down below the origin of the iliac arteries. The histology of the left aorta differed from that of the right or main aorta by having more elastic tissue, and there being an absence of intima, and it was not atheromatous. The left only gave off one large branch, and that the inferior mesenteric; the left renal sprang from near the septum, and seemed to pierce it. There were some communicating vessels in the lower thoracic region.

Dr. STENGEL had seen a case very similar to the above; he was a man 44 years old, presented no heart symptoms, but he had paralysis due to syphilis. He died suddenly from rupture of the dissecting aneurism. The aneurism began about the same place, and ended by opening into the aorta just above its bifurcation into the iliacs. It presented the same pathological changes. He did not think Dr. WILLIAMS's case was one of congenital double aorta, as the opening was small and ragged; the histology and pathology of the two differed, and the passage of the renal artery through the septum showed rather a separation of the coats of the aorta, forming a double aneurism.

Dr. HUGHES said that the absence of intima and the atheromatous changes in the left aorta led him to believe that it was a double aneurism, and that the iliacs might have been broken off, as was the case with the left renal artery.

Dr. WILLIAMS said that he still thought it was a double aorta, as he had studied carefully the specimen and the literature pertaining to the subject before coming before the Society.

Dr. CUSTER presented a specimen of *Sarcoma of the Supra-renal Body*. The tumor was a large one; it included the kidney and part of the liver, but neither of these organs was involved. He also showed a specimen of a *Pancreas with Tubercular Nodules*.

EDITOR'S NOTES

Dr. S. W. Elkin has been elected to the office of president of the Grady Hospital at Atlanta, Ga.

The Health Commissioner of Brooklyn has made the following appointments: Dr. W. H. STEERS, assistant sanitary inspector, and Dr. E. F. DANABER, inspector of plumbing.

Want to Be Coroner.—There are already scores of candidates for the position of coroner, left vacant through the death of Dr. P. O'Meagher. It matters little, perhaps, who is appointed, since at this session of the Legislature the bill dispensing with the present abominable coroner system will be passed.

No Change Wanted.—The opposition to the Stanchfield bill is on the increase. One after another the county societies and prominent educators are falling in line against it. Those who favor the bill are in such minority that there is small chance of its emerging from the hands of the Judiciary Committee.

Governor Carr, of North Carolina, has appointed the following delegates to the sixth annual meeting of the Association of Military Surgeons of the United States: Col. Hubert Haywood, of Raleigh; Major S. W. Battle, of Asheville; Major Young, of Concord; and Major Baker, of Tarboro. The association meets in Philadelphia May 12 to 14.

The Queens County Medical Society held its mid-winter meeting in Long Island City on the 20th of February. The next meeting will be held at Mineola. The officers of this county society are: Dr. John Mann, of Jericho, president; Dr. MacFarlane, of Long Island City, vice-president; Dr. J. S. Cooley, of Glen Cove, secretary and treasurer.

The Miraculous Well in the lower part of the city of New York which, for a number of days, has been credited with wonderful cures of disease by the Poles, Hungarians, etc., who have struggled to obtain the water, appears, after all, to contain simply diluted sewage, and it has been placed under the ban of the Board of Health.

A Long Time Between Birthdays.—The distinguished orthopedic surgeon, Dr. SAYRE, of New York, celebrated his 19th birthday at the age of 76 on the 29th of February! He was the recipient of congratulations from all over the world, and at the slow rate at which he is progressing through life the BULLETIN expects to offer its own again when it celebrates its centennial.

New Clothing for Transferred Patients.—The Board of Managers of the Manhattan Hospital have written the Commissioners of Public Charities that all patients transferred must be furnished with a complete new suit of clothing. The Commissioners felt that such an order would entail a very heavy and needless expense on the city, and referred the decision of the matter to the corporation counsel. It is intimated that this officer is of the same opinion as the Commissioners, and will apply to the courts for a mandamus directing the managers of the Hospital to receive patients without new clothing. The object of the order is, of course, to prevent the reception of patients into the Hospital wearing clothing which might contain the germs of infectious disease; but there exist in the city ample means for

the disinfection of clothing before the insane are discharged from the care of the Commissioners, and on this ground the order may be fought in the courts.

The Death Rate in the chief cities of New York during the month of January per one thousand of population was as follows: New York, 21.6; Brooklyn, 20.55; Long Island City, 19.35; Mount Vernon, 16.25; Albany, 24.57; Cohoes, 22; Troy, 22.20; Watertown, 18.35; Ogdensburg, 20; Schenectady, 17.85; Gloversville, 15.56; Little Falls, 14; Utica, 19.6; Saratoga Springs, 14; Binghamton, 15.5; Jamestown, 15; Syracuse, 15; Auburn, 15; Batavia, 10; Buffalo, 12; Lockport and Niagara Falls, 15.75; Rochester, 14; Oswego, 14.75.

Hypnotism in the Clinic.—The Illinois Medical College, at Chicago, had intended establishing a hypnotic clinic in connection with its teaching faculty, but, on investigation, it was found that so much quackery was associated with the subject of hypnotism as yet, that it was deemed wise not to push the project. Similar clinics, however, are to be found in a number of institutions for medical instruction in Europe, particularly in Sweden, where the subject has been divorced from quackery, and is established on a scientific basis.

X-Rays in Lightning.—Prof. WRIGHT, of Yale, in a lecture delivered in the Sheffield Scientific School on March 3, said that the lightning is the simplest form of the cathode rays. Lightning has often left imprints of surrounding objects on the bodies of men and beasts which it has struck. This is a form of the cathode picture. LENARD, of Bonn, Germany, accidentally took the first picture with cathode rays which was ever taken. He did not realize what he had discovered, however, and left it to Prof. ROENTGEN to complete the discovery.

Manhattan State Hospital.—It is stated that the cost to the State of the support of the Manhattan State Hospital for the current month will be about \$100,000. The number of patients there confined is 7000. The city offices of this hospital were opened on Friday, the 28th of last month, in the Metropolitan Building, Madison Square, East. The office hours will be from noon to 4 p.m. A steamer will leave the foot of East Thirty-first street on Mondays, Tuesdays, Fridays, and Saturdays, at 2 p.m., to convey visitors to patients. On Sundays special permits will be required.

The Fight Against Tuberculosis.—At the regular monthly meeting of the State Board of Health, held on the 28th ult., the chairman of the Committee on Tuberculosis reported that, since July 15, 1895, 527 cattle were killed. In regard to the sanitary condition of the State, there were 900 fewer deaths in January of the current year than in the same month last year. The president of the board was instructed to appoint a committee to petition the Legislature and the Governor for a larger appropriation this year, in order that the board might not only continue its good work, but improve upon it.

A Useful Institution.—New Jersey now possesses a laboratory of hygiene which is under the control of the Board of Health, and which, through the munificence of a number of philanthropists, costs the State nothing. The laboratory is built on the grounds of Princeton College, and Dr. RAVENEL, late of the laboratory of the University of Pennsyl-

vania, has been placed in charge. The chief donor to the State was Dr. CHAS. E. GREEN, of Trenton, who acted with a number of others after the Legislature of the State had refused an appropriation for the purpose. A point about this laboratory worth noting is that all the physicians of the State and the municipal boards of health will be notified that bacteriological diagnoses will there be made.

Charles Carroll Lee Memorial.—The Directors of the Post-graduate Medical School and Hospital have named one of their wards in memory of the late Dr. Charles Carroll Lee, who was for many years a professor in the institution. They have placed a tablet in the ward, giving the names of those who combined to contribute the \$10,000, which was given for the purpose of the memorial. These names are as follows: Dr. Robert Abbé, Dr. L. Bolton Bangs, Mrs. James Beales, Dr. Stephen S. Burt, Miss Caldwell, Dr. Charles L. Dana, Dr. Bache McE. Emmet, Dr. George H. Fox, "A Friend," Dr. Horace T. Hanks, Mr. and Mrs. Eugene Kelly, Mr. and Mrs. Henry J. Lamarche, Dr. Daniel Lewis, Mr. and Mrs. William Lummis, Mr. and Mrs. Frank A. Otis, Dr. Clarence C. Rice, Mr. Eli K. Robinson, Mr. Nelson Robinson, Dr. D. B. St. John Roosa, Mrs. Eliza M. Sloan, Dr. Andrew H. Smith, Mrs. M. E. Sparks, Dr. Reynold W. Wilcox. It will be seen that a number of the faculty of the New York Post-graduate School, assisted by a few laymen, have contributed \$10,000 toward the endowment of a ward in the Hospital, in the name of the late Charles Carroll Lee.

Mailing Disease Germs.—The post-office authorities have decided that if the patent box adopted by the New Jersey Board of Health be used, disease germs may be transmitted through the mails. The description of the box is as follows:

1. It consists of a strong glass bottle having a capacity of three drams. The bottle is provided with a metal screw cap made water-tight by means of a rubber washer.
2. The bottle is packed in borated cotton, in a tin box two inches in diameter and four inches long.
3. The whole is then inserted top first, into a second box lined with heavy cotton felt. Both boxes have metal screw caps, with rubber washers to render them water-tight. The outer box is covered on its outside with paper felt, one-quarter of an inch in thickness. The whole package weighs twelve ounces, and the postage upon it will therefore be twelve cents.

In the Line of Sanitation.—A bill has been introduced at Albany, entitled "An act to regulate the manufacture of flour and meal food products." The real intent of the act is to cause bakers of bread, cake, and pie, to render the premises where the work is done sanitary, and to see that cleanliness is enforced. One of the provisions, for example, is that all bakeshops shall be properly drained, the floors being of cement or other impermeable material, and that cellars or basements now used for bakeries shall be vacated. Another section provides that the employees in bakeries shall not sleep on the premises where the flour or the meal food is stored or manufactured.

Such a bill, should it become a law, may for a time work hardship, but when we consider how readily flour and meal products absorb materials which might be detrimental to health, and when we remember that many of the bakeries have the greater

portion of the manufacture conducted in cellars which are poorly ventilated and often dirty, the bill is in the line of desirable sanitation. All the more so is this apparent when we read that one of the largest bakers' says that there are some very dirty places among the bakeshops, in many cases the bakers sleeping near the troughs in which the dough is mixed, and that in some the foul odors from water-closets necessarily poison the atmosphere.

Obituary.—Dr. JOSEPH JONES, of New Orleans, died in that city on the 24th of February. He was born in Georgia, and served in the Confederate army and hospitals during the war. For many years he served as president of the Louisiana Board of Health, his knowledge of yellow fever and its treatment rendering him a valuable counselor to the State. He was one of the first to propose interstate quarantine. His papers on the subject of yellow fever and his studies of leprosy are classical. His busy life was relieved by many deeds of charity, which endeared him to the people of the locality where he labored.

Dr. J. BARTLETT RICH died in Worcester, Mass., on the 25th ult. He was a graduate of Yale and of the Jefferson Medical College. He was a member of the Massachusetts Medical Society and an ex-president of the Worcester Medical Society.

Dr. JAMES A. HOLMAN, a distinguished physician of Allegheny, Pa., died on the 19th of February, in the 38th year of his age.

Dr. J. F. NOYES, the pioneer ophthalmologist of the great Northwest, and for years the professor in that branch of medicine in the Detroit Medical College, died at the home of his nephew in Providence, R. I., at the age of 78.

Dr. JAMES W. ELLIOT, of New York city, died on the 27th of February, at the age of 72. He had practiced for a period of forty-six years, having been graduated at the College of Physicians and Surgeons in 1850. He leaves a wife and three children, two of whom are physicians.

Doctors' Exchange

In each issue of the AMERICAN MEDICO-SURGICAL BULLETIN certain columns are set aside as a "Doctors' Exchange." Under this caption will be published, *free of charge*, announcements relating to personal wants of all connected with the medical profession.

A physician who wants to buy or sell a practice will do well to make an offer here.

A physician who desires an assistant in special lines or general practice has here an opportunity of addressing a large number of bright, young physicians.

A physician who needs certain books, instruments, or specimens has the privilege of making known his wants here.

A physician who wishes to exchange books, instruments, or other personal property will very likely hear of a satisfactory offer through this department, *free of charge*. Open to all connected with the medical profession.

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THE CORONER MUST GO

THE proposed law for the reformation of the coroner system in the State of New York has been referred to the Judiciary Committee, and a hearing was given on March 4. This law was carefully prepared by the Hon. TRACY C. BECKER, a member of the Constitutional convention which recommended the abolition of the coroner system; by Dr. WITTHAUS of New York, Dr. BALCH of Albany, and the Hons. RUMSEY, PARKER, and HERRICK of the Supreme Court. These and other gentlemen endeavored to frame a bill which would do away with the objectionable features of the system at present existing, and it has received the indorsement of a number of the county medical societies and of the State Bar Association.

The chief features of the bill are the following: The office of coroner in the several counties of this State is abolished on the expiration of the terms of office of the present incumbents. Coroners' juries, post-mortem examiners, and coroners' physicians are similarly abolished when the act takes effect. On and after the first Tuesday of November, 1896, the appellate divisions of the Supreme Court for the several judicial districts shall appoint a number of medical examiners and assistant medical examiners, varying in number according to the judicial district. The bill also provides for the appointment by the same source of a number of expert pathologists and chemists. These appellate divisions shall fix the salaries, or the compensation of the examiners, the same to be a charge upon the county in which they serve.

Any medical examiner or assistant may at any time be removed by the appointing power after

charges against him have been presented, and he has entered his defense. Each appointee shall be under bond for the proper performance of his duties.

The term of office shall be for six years.

The duty of these examiners shall be to examine into the *cause* of death. They shall have the power to administer oaths, to take ante-mortem depositions, as also the depositions of all who may have knowledge in reference to the cause of a death. All such information shall be forwarded to a committing magistrate, who shall issue warrant for arrest where such is necessary, and shall proceed with the examination of the accused, even as is the case in other criminal proceedings. The examiner, further, shall make a similar report to the district attorney, if the case is one where a crime has been supposedly committed, and the said district attorney must proceed to investigate the charge before any magistrate within the county.

On and after the date when this bill becomes a law the duties and the powers which the present coroners have in civil actions shall be vested in the county treasurers of all the counties except that of New York, where the city chamberlain is substituted.

It is apparent that this bill at once does away with all the useless and the farcical features which for so long have disgraced the State of New York. Physicians who have proven their competency, after due examination, shall simply determine the cause of death and so report to a judicial officer before whom the proceedings to find out if a crime has been committed are held. An ignorant layman or a worse than ignorant physician can no longer act in a *quasi* medical or a judicial character and yet, by competent examiners, the cause of death will be

ascertained. In a measure the appointments become free from political influence. We certainly, in this State, will no longer see a baker, for instance, act as a judicial officer, or an excellent general practitioner pose as a lawyer. This old office of coroner is, after all, simply a survival of other institutions brought from England by the early colonists. In England the office dates back as far as Alfred the Great, and for a long time it was considered a position of very great honor. There the coroner is a justice of the peace with the special powers appertaining to that officer. In France there exists no equivalent office, the power being relegated to two men one of whom is a lawyer and the other a medical man. The latter is selected with special reference to his medical training and pathological knowledge. In Germany the police make all the necessary investigations, calling in physicians to their aid when requisite.

The bill we are considering is modeled in many respects after that which has been tested in Massachusetts for many years. It differs from the French system in that the legal duties are performed by the district attorney. For obvious reasons the German system could not be adopted here, because the police are not organized here as they are in Germany. Altogether, this bill appears to us to be a worthy one. If passed, it can readily be modified in case, after trial, it is found to be lacking in one or more points. What we should aim at during the session of the present Legislature is to secure something which, in accord with the report of the constitutional convention, relegates the present flimsy and disgraceful system to the limbo of things we would forget, and we should leave to future sessions any amendments which may seem wise.

At the hearing granted on Wednesday, March 4, by the Judiciary Committee, the bill was opposed by a coroner and a coroner's physician. This was to be expected, and such influence should carry absolutely no weight.

DIPHTHERIA ANTITOXIN FROM THE CLINICIAN'S STANDPOINT

AT a recent meeting of medical practitioners held in New York city, Dr. A. CAILLÉ opened a discussion regarding the present status of the diphtheria antitoxin viewed from a clinical standpoint. He presented a brief up-to-date *résumé* of the subject, and offered some suggestions as to the clinical indications for the exhibition of BEHRING's remedy.

CAILLÉ stated that BEHRING's antitoxin has now

been on trial for more than two years over the entire civilized world, and, after every possible allowance for exaggeration and error has been made, the fact remains that the discovery of BEHRING is one of the greatest of modern times. It is well understood that the attacks upon BEHRING in his own country are characterized and premeditated by personal factors which can no more obscure the scientific issue than can the pseudo-scientific theorizing which is liberally indulged in on this side of the Atlantic, and which is always one of the constant accompanying factors in the evolution of scientific medicine. WELCH is quoted as very accurately stating that if the causal relation of the Löffler bacillus to diphtheria is based on fact the treatment of the disease by antitoxin has a sound basis.

The precise action of antitoxin, CAILLÉ said, is not known; but the same may be said of iodide of potassium, antipyrin, thyroid extract, mercury, and many other valuable remedial agents whose beneficial and curative effects are universally recognized. From a study of the voluminous literature and also from what personal experience has taught, it is admitted that occasionally an exanthem or joint swelling follows the subcutaneous administration of antitoxin. Such manifestations are not sufficiently grave to contraindicate the employment of the remedy, for they are not attended with danger to life. The exhibition of acetanilid has been followed by deep cyanosis; antipyrin, potassium iodide, and other drugs occasionally produce cutaneous eruptions. Ptyalism and stomatitis are frequently induced by the use of mercury. Quinine has produced amaurosis. Ether, chloroform, nitrous oxide, and cocaine have produced death. Still we do not hesitate to use them on good indications. More than 100,000 injections of serum antitoxin have been made, and no reliable proof has been established that in a single instance death could be directly attributed to the treatment.

The deleterious effects of alien blood-serum have been studied and recognized long before the advent of the antitoxins, says CAILLÉ. He says that *intravenous* injection or the *prolonged use* of blood-serum has been found to be detrimental and damaging to the economy and life; but one or two injections of serum subcutaneously are not, in the light of our present experience, in any way dangerous; and a study of the reports made by competent and careful clinicians tend to show:

1. That serum antitoxin has a specific curative and immunizing action.
2. That the frequency of complicating nephritis

in cases of diphtheria treated by antitoxin is diminished as compared with diphtheria cases without specific treatment.

3. That the frequency of albuminuria and post-diphtheritic paralysis appears to be about the same as before the introduction of the serum therapy.

4. The prevention and cure of laryngeal diphtheria without intubation or tracheotomy, and the shortening of the period for wearing the tube in instances demanding such interference, are among the most striking and convincing results of the specific treatment.

5. Supplementary measures (stimulation and mild local treatment) must not be neglected.

Such are the facts as shown by the "*brute force of numbers*," as VIRCHOW has recently stated.

The range of the application of diphtheria antitoxin from a clinical standpoint, according to Dr. CAILLÉ, has not been prominently and sufficiently brought out. BEHRING has repeatedly urged that his remedy be used *as early as possible*. This means that in general practice the immediate diagnosis and treatment are not to rest upon a bacteriological examination, and the physician who delays the injection until after the completion of a bacteriological examination for the purpose of diagnosis is open to criticism.

Dr. CAILLÉ goes even farther, and argues that in every case of so-called tonsillitis with fever, in diphtheria of the naso-pharynx or other regions (*e.g.*, conjunctiva, parturient canal) and in invisible diphtheria of the larynx (croup), diphtheria antitoxin, 500 to 1500 units, ought to be administered without loss of time. Furthermore, he argues that 500 units ought to be injected in every case of scarlet fever, for the reason that a certain percentage of scarlet-fever cases are complicated with true diphtheria, and to wait for complete bacteriological examination for diagnosis must be looked upon as a disregard of the ordinary dictates of prudence and as censurable apathy. Finally, he announces as his opinion that all exposed children and children in infected localities, suffering from measles, whooping cough, ulcerative stomatitis—in brief, all cases presenting conditions which favor diphtheritic infection, should receive an immunizing injection of 100 to 200 units.

The classification of diphtheria into pure and mixed, he thinks has been a stumbling-block to the practitioner in medicine, and he states that a complete examination will reveal in practically all cases streptococci besides the Löffler bacilli, as stated by WELCH. The former, he argues, may not be engaged in pathogenic action at the onset of the

disease, and as diphtheria antitoxin is unable to combat developed streptococcus sepsis, the indication is for its early administration before general coccus sepsis sets in and cell life is damaged beyond repair.

The attention of the profession is called to this *résumé* of facts and clinical indications with the hope expressed by Dr. CAILLÉ that we may by the timely use of antitoxin accomplish all that BEHRING claims in the following words: "I am now definitely of the opinion that under suitable treatment with my remedy the mortality from diphtheria may be reduced to less than 5 per cent."

A Novel Suit for breach of contract recently figured in a Chicago court, in which the plaintiff, Dr. JNO. A. WESENER, sought to recover a fee of \$150.00 for professional services in the treatment of the liquor habit. The contract provided for the complete cure of the patient, and the litigant's word that he had not been cured was taken as sufficient evidence to defeat the physician's suit, against whom a verdict was rendered.

Journal of Experimental Medicine.—The medical journal to be issued under the auspices of the Johns Hopkins Hospital has made its appearance, nearly two months later than originally intended, the purpose having been to publish the first number at the beginning of the year. It is entitled *Journal of Experimental Medicine*, and has for its editor Dr. WM. H. WELCH, of the Johns Hopkins School. The typographical appearance is attractive and the contents are solid, consisting of contributions by some of the most eminent physicians in the country. The editor is assisted by a corps of associates.

Mitosis and Amitosis.—Dr. E. KROMPECHER. (*Virchow's Arch.*, 1895, CXLII, No. 3, p. 447-473) says that the existence of a uniform and non-uniform mitotic division of the individual nuclei of multinucleated cells is settled. Mitosis only can be looked upon as a progressive form of division; amitosis, on the other hand, must be viewed as a regressive form of division, or, more properly speaking, as a disintegration form, a degeneration phenomenon of the nucleus. Convincing proofs of this are the occurrence of mitosis and amitosis beside each other in various nuclei of the same cell—*i.e.*, in multinucleated cells—and the positive observation that, in a mononucleus, amitosis immediately succeeds mitosis.

Endothelial Skin Warts and Sarcoma.—C. BAUER (*Virchow's Arch.*, 1895, CXLII, No. 3, p. 407-428), contrary to the opinion of UNNA, states that the soft skin or flesh warts, fibromata mollusca, birthmarks or naevi, owe their existence to proliferated endothelia of the lymphatic system. Therefore, they may be designated as endotheliomata. If these growths are pigmented, the pigment first collects in the peripheral endothelial cells scattered throughout the connective tissue. Malignant tumors originating from these naevi are sarcomata, chiefly alveolar sarcomata. If these sarcomata are pigmented, the pigment likewise first collects in the cells lying in the connective tissue; the degree of pigmentation, however, is greater, as pigment is met with throughout the whole of the tumor tissue.

ORIGINAL CONTRIBUTIONS

VENTROFIXATION OF THE UTERUS; ITS EFFECT ON SUBSEQUENT LABOR*

By L. M. MICHAELIS, M.D.

IT is hardly necessary for me to repeat the truism that the exact status of an operation can only be learned by reviewing the accumulated experience gained from its results, both favorable and unfavorable; nor should I mention it now were it not that it is with the purpose, however feeble, of furthering this object, that I submit to your consideration the following remarks:

The reports of cases of ventrofixation of the uterus followed by pregnancy and normal, uneventful labor are to be found in the journals in ever-increasing numbers, and the general impression seems to prevail that after submitting themselves to such an operation women may become pregnant and look forward to a confinement as simple and easy as they could expect had the uterus been in the proper position without operative interference. A glance at the literature will prove that there is no exaggeration in this statement. Thus EDEBOHLS¹ reports four cases of pregnancy in women, upon each of whom he had performed an extremely interesting series of operations, ventrofixation being among them; one died suddenly during the ninth month of pregnancy owing to a cardiac lesion; the others went to term and were delivered, two spontaneously and one with forceps. Kelly,² in an article based on a series of 200 operations, states that there have been at least six pregnancies in only one of which "was there any marked discomfort and dragging due to the attachments of the womb." PENROSE³ holds that "it [ventrofixation] does not interfere with conception, the course of pregnancy or labor," and in the discussion following the reading of this paper BALDY⁴ cites two cases, both having easy confinements; one, in fact, having had several difficult and painful labors previously. STRASSMANN⁵ comes to the conclusion that in spite of several cases of abnormal labor which he mentions, difficulties during pregnancy after ventrofixation are rare. In reply to a letter on the subject, Dr. EDEBOHLS writes me that "since reporting upon these cases [just mentioned] I have learned of four or five other patients upon whom I have performed ventral fixation and who subsequently became pregnant, went to labor at term, and were safely and naturally delivered. The fact is now considered settled that ventral fixation of the uterus produces no special inconveniences or danger to the patient in subsequent pregnancies and confinements." So, too, Dr. H. J. BOLDT informs me in answer to my inquiry, that "in three cases of pregnancy following ventral fixation of the uterus,

the gestation went to term without any untoward symptoms, and subsequently the uterus also remained in ante-position." Cases and opinions may be quoted indefinitely, all in favor of the operation and its final results, but enough have been cited for my purpose.

Let us see what occurs after the operation has been performed, and how it is that normal labor can go on to a satisfactory termination in women who have uteri which have been ventrally fixed. After the uterus has been attached to the anterior abdominal wall the adhesions which are established between the two structures hold the womb in place in a position of anteversion, and after the lapse of a varying length of time, become attenuated and cord-like, leaving the uterus more or less freely movable, while still retaining it in the normal position. Conception occurring, these adhesions hypertrophy as pregnancy advances, so that as the uterus rises out of the pelvis there is no undue dragging upon it, and the woman is conscious of little or no discomfort from the guy-rope existing in her abdomen. Under such circumstances there is nothing to prevent labor from taking a normal and uneventful course; and this, as we have seen, it frequently does. After labor the adhesions shrink in size, keeping pace with the involution going on in the uterus, until finally examination reveals the same condition of affairs as existed before pregnancy occurred. This, then, is the process in favorable cases, and were all to take the course described, there could be only one opinion upon the value of the operation. It is fortunate for those women who have had ventral fixation performed upon them that the majority can look forward to such a happy outcome of future pregnancies. Yet it is well for obstetricians to bear in mind that such favorable terminations are not always the rule; in fact, that very unpleasant and even serious complications may not infrequently arise, directly due to the ventrofixation of the uterus.

Numerous cases are on record in which the period of gestation has been one of annoyance and even suffering for the patient, especially during the later months, because of traction of the growing uterus upon the adhesions; in some few, indeed, this has been so marked as to prevent their assuming a position which would give them ease and complete freedom from pain. It is true that this is not a very grave objection to advance against the operation, for many women suffer almost as great discomfort from the retro-displaced uterus constantly as they do temporarily from the traction upon the adhesions; yet it is a fact to be borne in mind by us, as one with which we may have to contend, and is also one upon which the patient may not look in such a philosophical manner. Extremely painful labors, due to dragging upon the site of the fixation at each contraction of the uterus, also occur. Thus GOTTSCHALK⁶ mentions two cases in which the pain was unduly severe, and this symptom also played a

* Read before the Metropolitan Medical Society, Feb. 25, 1896.

¹ Trans. N. Y. Obstet. Soc., Nov. 21, 1893.

² KELLY, H. A.: *Jour. of the Am. Med. Assn.*, Dec. 21, 1895.

³ PENROSE, C. B.: *Am. Jour. of Obstetr.*, Vol. XXXI, p. 316.

⁴ Trans. Coll. of Phys. of Phila., *Am. Jour. of Obstetr.*, Vol. XXXI, p. 395.

⁵ STRASSMANN, P.: *Centralbl. für Gyn.*, 1895, No. 49, p. 1300.

⁶ Gottschalk: *Centralbl. für Gyn.*, 1895, No. 52, p. 1376.

prominent part in the case which I wish to report. Naturally these conditions are more apt to occur in those cases in which the uterus is firmly united to the anterior abdominal wall, and this union it is which gives rise to practically all the serious complications which we meet in these cases of labor. These complications are exceedingly various, and it is my desire to call your attention to the more serious among them.

With the anterior uterine wall firmly attached to the abdomen, that portion of the womb can naturally take no part in the growth of the organ which is necessary to accommodate the increase in size of the fetus, and this duty falls upon the lateral and posterior walls, which become thinned, as a natural sequence, with the advance of pregnancy and may reach a dangerous state of tenuity when labor sets in. Hence, not only does this predispose to uterine rupture, and of this we will speak later, but it is not uncommon to encounter uterine inertia in patients who have previously given birth to children in a normal and rapid manner, thus demanding operative interference for the completion of their delivery. Following the birth of the child in these cases, we may easily have to contend with post-partum hemorrhage. Nor is it in such cases of inertia only that we may meet with this complication, as it may occur in any in which the fixation interferes with the proper action of the uterine muscle. As an illustration, the following case, quoted by STRASSMANN,⁷ serves very aptly: Descent was interfered with; the application of forceps was made necessary because of dangerous and extremely painful traction at the site of the fixation. After delivery there was post-partum hemorrhage caused by non-retraction of the uterus. This was controlled by the use of a binder. In this case the posterior wall of the uterus was also involved in the fixation, but since, in the method described by KELLY, this may readily occur by inserting the sutures a little too far posteriorly, I think the case is apposite; for while it is unquestionable that the *technique* of the operation can and does modify the results materially, it is nevertheless true that among a number of women operated upon by the same surgeon in apparently the same manner, one may be normally delivered, and another have a complicated labor. To my mind this discrepancy is due to the fact that in spite of practically the same method of operating, one can never tell with certainty whether the adhesions, which are formed later, will consist only of those tissues which were originally united by the sutures, or whether contiguous structures will not be involved by inflammatory action.

Another factor which influences the outcome is constituted by the sutures themselves, their final disposition, and the material of which they consist. Thus many operators recommend the use of absorbable sutures, holding that unduly firm adhesions are formed in those cases in which non-absorbable material is left in the wound. Others who use silk-

worm gut advise the removal of the sutures within two weeks, for the same reason. In some cases the presence of the sutures may cause grave interference with delivery. MACKENRODT⁸ reports a case in which the uterus had been fixed by two silk-worm gut sutures. The patient became pregnant, and fell in labor. He saw her after she had suffered intensely for three days. The whole hand had to be introduced into the vagina in order to reach the os, and then, in spite of the long continuance of the pains, it was found undilated. The position of the uterus was such that at each pain its anterior wall was driven into the pelvic inlet by the child's head. Bullet forceps were used to drag down the cervix, and manual dilatation, with subsequent version, were performed. The os was still so high up that, after one entire leg was out of the uterus, it lay completely within the vagina. After working for two and one-half hours, a living child was delivered, but during the manipulations the fixation sutures tore with a distinct jerk, whereupon the uterus became freely movable, which had not been the case before. MACKENRODT holds that, had this not occurred, birth would only have been possible by means of spontaneous or artificial separation of the anterior uterine wall. This case furnishes us a vivid illustration of the danger with which we may at any time have to contend, namely, impending rupture of the uterus—an accident which can by no means be regarded as a remote possibility; for we have as factors, not only long labor leading to exhaustion of the uterine muscle, but also misdirected force and grinding of the fetal head against the uterine tissue as additional causative elements. MILÄNDER⁹ details a case similar in its features, though one in which cesarean section was performed in order to deliver the woman. The patient was a primipara, with albumin in her urine; child transverse, pains infrequent and weak. Here also the os was so high up that it could only be reached by introducing the whole hand into the vagina under narcosis, and then it was found to be undilated. The head was prevented from entering the pelvis by marked adhesions which existed between the anterior uterine wall and the abdomen. The albumin was found to be increasing, and therefore an attempt was made to break up the adhesions through an abdominal incision; this was abandoned because of hemorrhage, and cesarean section performed. Both mother and child survived.

Here we have two cases, in both of which, owing to firm adhesions, and the consequent abnormal position of the uterus, high up in the abdominal cavity, natural delivery was out of the question. On account of the misdirected force resulting from the improper situation of the uterus, in neither was the os dilated; and this in the one in spite of long-continued and intense labor pains. In itself this is a complication with serious features for both mother and child, but when we add other and more dangerous elements

⁸ MACKENRODT, A.: *Monatschr. f. Geb. u. Gyn.*, 1895, ii, No. 5.

⁹ MILÄNDER, J.: *Zeitschr. f. Geb. u. Gyn.*, Vol. XXXIII, p. 464.

⁷ Loc. cit.

the picture is one not pleasant to contemplate. It is queer, too, that in one of these cases the class of painful labors referred to should be exemplified, while the other should present an example of uterine inertia. This discrepancy cannot be explained by saying that we meet with both conditions in women who have not been operated upon, for we are liable to find either one or the other in patients who have previously had normal labors. The cause, I think, must be ascribed to the adhesions.

We find further that at times the fixed portion of the uterus becomes so hypertrophied during pregnancy, while taking no part in the general increase of the capacity of the organ—that, as I have said, being accomplished by the posterior and lateral walls—that a large, firm mass of muscular tissue results, interfering seriously with the progress of labor. This condition can very readily be understood when we reflect upon the enormous physiological increase in the size of the muscular fibers as well as the large numbers of new fibers which are formed during pregnancy. Such increase taking place in the attached portion will, as a natural sequence, lead to an abnormal state, varying from an appreciable thickening of the uterine tissue to the creation of a bulky mass large enough to form a decided tumor encroaching upon the pelvic inlet. The variation, I think, is chiefly dependent upon the extent of uterine surface, both in length and in breadth, originally included in the ventrofixation. With the lesser degree of thickening there may be no trouble at the time of labor directly due thereto, but the large masses may easily lead to serious and complicated labors. Thus Dr. CHAS. P. NOBLE, of Philadelphia, in answer to my inquiry, informs me that among the numerous patients upon whom he has performed ventral fixation of the uterus, only two became pregnant and went to term; one was confined by Dr. NORRIS, and the case was reported by him.¹⁰ Here the patient was examined after several hours of ineffectual labor pains and such a muscular mass as I have mentioned was found obstructing the pelvic inlet, the buried silk-worm sutures being plainly felt through the abdominal wall at the upper margin of the mass. No presenting part could be felt, and almost the entire uterine sac was formed by the posterior wall, which was so thin that the intestines could be plainly felt through it. The child was resting by the breech on this heaped-up muscular tumor; none of its parts within reach, as the hand could not get around the projection without violence. Owing to the imminent danger of rupture of the uterus, cephalic version was performed and the head crowded down. A very high application of the Jarrier forceps was successful in delivering the patient. Compression of the cord between this muscular tissue and the head caused the death of the child. The mother recovered with a large hernia into the line of the abdominal incision. The second case, as yet unpublished, and very kindly put at my disposal by

Dr. NOBLE, was one which presented very similar features, but which unfortunately had a much more serious outcome; briefly stated, it was as follows: Patient was a vigorous multipara, whose pregnancy was practically uneventful. She was attended in labor by Dr. PARK, of Philadelphia. Pains were trifling in character, and hence she was not seen by Dr. NOBLE for about twenty-four hours. Then with the half hand in the vagina only the anterior lip of the cervix could be felt. Under anesthesia the os was found undilated, but dilatable. Here also there was a large tumor formed by the hypertrophied anterior wall and major portion of the fundus, which made a shelf-like projection on which the fetus rested; while it was quite easy to reach around the mass and feel the feet and parts of the legs, both Dr. NOBLE and his assistant failed to bring down a leg. Further attempts were discontinued for ten hours, in the hope that the obstruction would soften down; then Dr. PARISH also failed to bring down the feet. No alternative existing, the Porro operation was performed. The patient, in some way not understood, unfortunately became infected, and died of sepsis on the sixth day after delivery. Comment upon the danger due to this abnormal muscular hypertrophy would, in the light of these two cases, be entirely superfluous.

It is a difficult matter to attempt to classify the different complications arising in labor after ventral fixation, for the reason that so many present more than one abnormal feature. One not yet touched upon is the comparative frequency of transverse position induced by the peculiar shape and improper situation of the uterus. We have seen that this occurred among those cases which I have already cited, and it was also a feature in the labor of a XIIpara reported by MILÄNDER,¹¹ in which version was necessary after manual dilatation of the os, because of the further complication of short, weak, and infrequent pains; this, too, in a woman who had always had normal labors. My own case illustrates very well the combination of abnormal features which I have just mentioned. The history is as follows:

L. R., aged 39, a midwife, multipara, had the appendages on one side removed and ventrofixation performed in the spring, of 1894, by Dr. F. FOERSTER at the German Hospital. She had given birth to six living children and had six miscarriages. Some months after the operation she became pregnant, but suffered no unusual symptoms during the period of gestation. One month before her confinement she complained to her physician that she had not felt life for about a week; at this time the fetal heart sounds were distinctly heard. Two weeks later, however, they could not be made out, nor could they on the following day. Other than the absence of movements and heart sounds of the fetus, there were no signs, objective or subjective, of its death. At 11 p.m. on November 27, 1895, she fell in labor, and at 7 a.m. the next day she sent for her physician. The os admitted one finger.

¹⁰ Trans. Coll. of Phys. of Phila., *Am. Jour. of Obstetr.*, Vol. XXXII, p. 938.

¹¹ Loc. cit.

The pains were much more severe than she had ever experienced in previous labors. At 11 a.m. the os admitted two fingers; at 5 p.m. three. Between these two hours the pains gradually diminished in force and frequency, so that at 9.30 p.m. no progress had been made. At midnight the membranes ruptured spontaneously, and a small quantity of stained liquor amnii escaped. I saw the patient at 12.30 a.m. on the 29th. Os admitted three fingers. Right shoulder presentation, dorso posterior. Under chloroform, by my advice, the os was manually dilated, and version performed without special difficulty by the attending physician and a dead and macerated fetus extracted. After the placenta had been expressed small portions were found to have been retained. These I removed by hand, and in so doing discovered that almost the entire anterior wall was the seat of a large mass of muscular tissue, which markedly diminished the internal dimensions of the uterus. Very fortunately the uterus contracted promptly after the use of a hot douche of mercuric-chloride solution and the hypodermatic administration of ergot. I have subsequently learned that 10 days after delivery the patient had a secondary hemorrhage lasting two or three days, after which she was up for four days, when a second and quite severe hemorrhage occurred lasting one week. Examination a few days ago revealed a large subinvolved uterus in a position of anteversion, which, in spite of very distinct thickening at the site of the fixation, was yet quite freely movable.

Consideration of this case shows very clearly how a number of complications may be observed in one and the same patient. Thus we have first unusually severe pains, in spite of which and probably because of the abnormal condition of the uterine wall and consequent interference with the function of its fibers, an undilated os. Then a subsidence not only of the severity of these pains, but also a diminution of their force and frequency, almost to the extent of absolute uterine inertia; and, finally, a transverse position of the fetus. The muscular mass, while large enough to materially influence both the size and shape of the inside of the uterus, was fortunately not of such dimensions that it could prevent the descent of the fetus; yet to this was due the abnormal position. No cause could be learned to account satisfactorily for the fetal death, nor can a positive explanation of the secondary hemorrhages be made. The fact that the patient left her bed on the ninth or tenth day of her puerperium, together with the large size of the uterus and the probably inefficient rearrangement of its fibers during involution as a direct result of the peculiar condition of the anterior wall may well have been the exciting factors. I consider myself fortunate in not having had a post-partum hemorrhage to further complicate the case.

In conclusion, I would say that while in the majority of cases of labor following ventrofixation of the uterus the process takes a favorable and uneventful course; in not a few, complications of con-

siderable gravity may readily be encountered, and that therefore the opinion which is so universally held that ventrofixation has no special influence on subsequent labor is not fully justified. Finally, I would urge the publication of the histories of such cases which may be met with by members of the profession, to the end that the true value of the operation of ventrofixation of the uterus in child-bearing women may be definitely determined.

New York; 1090 Lexington avenue.

SHOULD MEDICAL REGISTRATION LAWS COVER THE SCIENCE OF OPHTHALMOLOGY?

By F. M. HARRINGTON, M.D.

A STATE board of registration in medicine regulates the practice in such manner as to insure the best possible service to the public. It prevents imposition by making public the record or standing of each individual practitioner and makes it necessary for the bogus physician, owner, and dispenser of some mysterious preparation to show evidence of scientific medical knowledge before he is permitted to prescribe his magic remedy. If you know—or imagine—Mr. So-and-So, your barber, to be possessed of a private ten-minute cure for pneumonia, and take his nostrum with full knowledge of your prescriber's caliber, why that is your privilege. The State board of registration deals alike personally with the reputable physician, the nostrum peddlers, and the "seventh sons," and, by making a common standard of requirements for the privilege of practicing medicine, guarantees the public that each practitioner so privileged, irrespective of his methods of education, has shown such reasonable knowledge of his profession as to render him at least harmless to the community. A State board cannot regulate the ideas of the public at large, and neither does it care to do so. If any individual insists upon a certain line of treatment which is irrational in the opinion of physicians, he has still the right to carry out his ideas, providing, of course, his instincts are neither suicidal nor insane.

There is one part of the ground, however, which State boards have not fully covered as yet, and that is occupied by the "jeweler oculist"—the optician who fits glasses, and the traveling fakirs. Almost every optician believes he is as competent to fit glasses as any physician, and makes the attempt whenever an opportunity presents itself.

There are schools—usually conducted by one who has "graduated" from a similar school himself—where, for a few dollars and a few weeks' attendance, the student may learn all there is to be known regarding the eye, and next we find him in some jeweler's shop wearing glasses and a superior look and proclaiming to the world his ability to relieve all ocular troubles. During the time not devoted to his "specialty" he will be found cleaning silver, repairing clocks, and making himself generally useful. Of course, the "graduate" knows nothing of the

anatomy, physiology, or pathology of the eye. If you speak to him regarding pathological conditions of the visual organs, he will usually look wise and preserve a discreet silence—these matters really concern him so little; such knowledge is not required by an oculist!

Almost every day some of us see the result of the work accomplished by these gentlemen—misfit frames, wrong pupillary distance, plain lenses where cylinders are required and cylinders (usually with the axis wrong), where there should be compound glasses; plus glasses where there should be minus and *vice versa*. Only recently I had under my care a case of acute conjunctivitis, which made its appearance with the "graduate's" glasses and left with their removal.

The sway of the "bone-setter," the "yarb-doctor," the "healer," and the "seventh son of the seventh son," is past as far as active service is concerned. The current of professional and popular opinion through the channel of discreet legislation has swept these pretenders to their proper depth, and made it next to impossible for them to breast the tide. The public has been schooled by experience to distinguish between the physician by education and the claimant by virtue of his hereditary acquirements. The "seventh son" has taken his place in the ranks of the fortune-teller, and the "yarb-doctor," confines his ministrations to freely offered advice to patient and attending physician alike. Nowadays, if our butcher or baker were to suddenly proclaim his ability to cure our diseased lungs, our disordered liver or irregular heart, we should doubt his word. And yet the "jeweler-optician" is allowed to fit our glasses without question or distrust from us, although his assumptions are no less ridiculous than those of his above quoted brethren.

The advance of ophthalmology within the last few years has been phenomenal. The work of such men as Dr. WILLIAMS, the Father of ophthalmology, Drs. NETTLESHIP, THOMPSON, DERBY, GOULD, NORRIS, etc., has accomplished much. The field is rapidly broadening, and its limits are undefined. *The fitting of glasses is a large and very important part of the work.* For that reason it should be considered as coming under the head of medicine, and should have thrown around it those restrictions which are applied to medicine in general. It is as essential to protect the public in this respect as it is to assure them as to the character and ability of the gentlemen who treat the other bodily ailments.

Given a patient, and before we can think of putting on glasses, we must consider the general health; what organic or constitutional disease is he suffering from, and what relation exists between this and the optical defect. In young people we must always examine the eye with the ophthalmoscope, and in most of these cases we have to resort to the use of a mydriatic. In older people many forms of impaired vision have the source of the trouble located elsewhere than the eye. Constant headaches are

not always due to astigmatism, which accounts for the fact that many people who have cylinders furnished them by opticians do not obtain relief. Cylinders rarely can be properly fitted without the use of a mydriatic. This is why the optician puts on a minus cylinder where, in reality, a plus is required, gets the wrong axis, and usually the wrong strength glasses. *In order to accomplish the proper adaptation of lenses to the human eye, we must understand the anatomy and physiology of the body, as well as the minute anatomy and physiology of the organ of vision.* We must know the pathology, not only of the eye but of the entire system, and having become educated to this extent we must learn the surgical and therapeutic agents best adapted to the various pathological conditions of the body. In other words, we must be thoroughly well grounded in medicine; for then, and only then, are we competent to deal intelligently with the human eye.

All animals are born hyperopic. Man is the only animal who becomes myopic. This is because of man's constant use of the eye for near work—a habit which nature has not provided for. The eye being plastic in childhood, readily conforms to the strain put upon it, causing the organ to assume all manner of shapes. For this reason every child should be properly examined before entering school, and optical defects, if present, corrected. By this method, many years of suffering might be prevented. How many cases of astigmatism go uncorrected year in and year out, bringing the sufferer a train of symptoms too numerous to mention, provocative of suicide, melancholia, hysteria, epilepsy, etc.!

The fakir with his cure for all known and unknown diseases which flesh is heir to, is, in reality, far less dangerous to the community than the "graduate optician." The public, at the present day, is apt to doubt the fakir, but will, at the same time, put implicit trust in the optician. The fakir guarantees to do what both he and his victim know he cannot do. We therefore say the ignorant fellow is a menace to society, both because of his possible influence over weak minds and because he is trifling with intricate and vital organs. But who shall say the eye is not an intricate and vital organ? This being so, is not the prescribing jeweler as dangerous to the community as any of the fakirs?

The legitimate field of the optician lies in the making of glasses, and there are opticians who really attend properly to that portion of their work. There are a numerous brotherhood, however, styling themselves opticians, and yet unable to grind out the simplest lens, and who have never seen a spherical or cylinder lens in process of manufacture. These are the gentlemen who attempt to fit all kinds of refractive errors, exhibiting as a proof of their ability, some "diploma" obtained after a few weeks' instruction from some jeweler or unfortunate physician, who, unable to make a living in any other way, does not scorn to sell his birthright for a mess of pottage. They call themselves "opticians," knowing little or nothing of optics, but worse still,

they try to fill the functions of the oculist with no knowledge whatever of his work.

The physician often suggests to his patient that a pair of glasses may prove of benefit. The patient thereupon hies him to the jeweler and orders a pair of glasses. Experiencing no relief he returns to the physician, who, being a man in general practice, assumes the glasses were not what was needed after all, and the patient is given over to "nervous prostration," or something similar. There are a great many brilliant physicians who have not as yet given this matter serious thought. If the general practitioner would co-operate with the oculist in removing physiological and mechanical errors of the eye, by giving the matter the serious consideration essential, the patient, in many cases, would be relieved of years of suffering, and the physician of many hours of worry and perplexity. Opticians make a great mistake in fitting glasses to people under forty-five years of age. The manifest and not the latent error is corrected, or partially corrected; the patient thinks the glasses must be correct, and the general practitioner seeing they do no good gives up the eye in despair and looks to some other organ for the cause of the disturbance. By this combination of circumstances the patient is made to suffer unnecessarily.

All opticians would do well to look closely to their special line of work. The field is broad and capable of much improvement. Many times my patients come to me with a frame not made according to my prescription, and there are only a few places in the country where good work is done. The work of the manufacturing optician requires skill and intelligence, and as a general thing men fitted for the work have no time to do anything else. The class of men I refer to more particularly are those who have as little right to the title of "optician" as to that of "oculist"—namely, the "graduate optician."

This line of thought brings to my mind the story of a sufferer who consulted a "traveling doctor" regarding some ailment, asking him what he pronounced the disease. "Madam," said the 'doctor,' "I can't tell you exactly what your trouble is, but I've got something 'twill throw you into fits, and I'm great on fits." So it is with the "graduate optician"; he is "great on fits"; fully confident of his own ability, reckless in his anxiety to dispose of his glasses, and regardless of his victim's welfare, his ruling idea is to "fit" glasses and—nothing more!

Pawtucket, R. I.

Dissemination of Disease by Books.—The conclusions of M. DU COZAL and CATRIN (*L'Union Médicale*, L, p. 608), drawn from personal investigations, are:

1. New books, without being aseptic, do not contain pathogenic microbes.
2. Books of hospital libraries may transmit Klebs-Löffler bacillus and streptococcus; the pneumococcus and Koch's bacillus cannot be transmitted in this manner.
3. Only bound books should be placed in the hands of patients, and these should be repeatedly sterilized.

WHERE TO SEND INVALIDS AND SEMI-INVALIDS FOR THE WINTER

By SAMUEL S. WALLIAN, A.M., M.D.

A CERTAIN proportion of the invalid, semi-invalid, and by no means invalid public has grown to be migratory. One class is made up of those who are really sick and feel compelled to change their climatological or local and domestic surroundings, with a view to recovery, or at least amelioration of symptoms and prolongation of life. Another class, warned by timely hints from the medical adviser, would ward off the first manifestations of some malady for which they are told they inherited or have acquired a susceptibility or predisposition. Another large class, among the well-to-do, dread the long battle with the elements which our cold, treacherous, and inconstant northern winters make inevitable to all who lack means, opportunity, or discretion to migrate. Another and still larger class is composed of those who accept their climatic discomforts as a part and parcel of this imperfect mundane existence, and endure with as much fortitude as possible the long confinement in stuffy and overheated rooms, overdraped and underventilated—a condition to which long custom and fairly hereditary habit have made them uncomfortable if not always outwardly unwilling victims. Where shall they go?

Shall it be to the Bermudas, where, it is said in the advertisements, there is "positively no malaria and no mosquitoes," with such emphatic reiteration that one feels afraid of both? Shall it be to the West Indies, where the fires of revolution and the flame of yellow fever are never entirely quenched? Or to Florida, where King Frost made such terrible havoc last season, and where even the utterly unscrupulous advertising interests do not quite dare to assert that the wraith of malaria has ever been laid? Shall it be to the highlands of the Carolinas or Georgia, where less is claimed and more realized as to the absence of malaria, but where winter is still winter, and the weather is often as capricious as a regular city coquette? Shall it be to the Hot Springs of Arkansas, where one must encounter the repentant *roulés* of all the "tenderloin" districts of all the large cities in the country? Shall it be to the dry, and sometimes overstimulating, atmosphere of Denver or Colorado Springs, where sharp twinges of genuine winter, pelting sand-storms, and sudden changes are by no means unknown? Or shall it be to the Ultima Thule of the Republic, Southern California, where the "equability" and "perpetual sunshine" so much advertised elsewhere are probably as fully realized as they well can be on this planet?

Let us see if this statement, which sounds so much like those we read in the illustrated hand-books of "How to See"—this or that much-advertised region, requires serious modification.

"California as a Health Resort" has been so repeatedly done, overdone, and underdone that it has been voted a rather antiquated chestnut in medical

literature. So much of what has been written on this theme has been inspired by a lunacy of enthusiasm born of novel surroundings and experiences—calla lilies that bloom all winter in the open, fuchsias that cover the whole front of a two-story building, fresh strawberries on the table every month in the year, etc., etc.—or has emanated from the needs and anxieties of poorly patronized boarding-houses and would-be fashionable “sanatoriums,” that it is hard for one who has not personally studied the region dispassionately and for a long time—not merely for a month or two in winter—to get any reasonably fair idea of what climatic and sanitary advantages may be realized by a resort to this now much-talked-about coast.

For all practical purposes the northern portion of the State may be excluded from the inquiry, since portions of it suffer more or less from miasmatic influences, and its average climate is subject to numerous drawbacks, some of which are very decided in character. Nor will it be either apt or accurate to speak of the *climate* of Southern California in the singular. The term is a misnomer. There are, in truth, almost as many climates as there are neighborhoods, since no two localities, five or ten miles apart as to distance from the coast, or 500 feet different as to elevation above sea-level, or topographically in marked contrast, have the same climatic characteristics. Thus the distance from the ocean, the particular exposure, and even the accident of artificial development and cultivation, including the presence or absence of irrigating systems and inland bodies of water, constantly modify climate in this region to an extent not even hinted at in the formal statistics of the Weather Bureau.

A statement of this fact is necessary to account for the great variety of often quite contradictory opinions and observations which have been published from time to time, and which are, perhaps, strictly true from the narrow standpoint of the individual observer. So marked and unmistakable are the contrasts between really contiguous localities that it is not impossible or unusual for equally accurate and equally candid observers to form almost opposite and apparently irreconcilable opinions as to prevailing characteristics, advantages, or disadvantages. One gathers all his impressions from a point directly on the coast, another spends his time in some inland valley, and a third studies the local characteristics prevailing on some mountain plateau, or in an elevated valley comparatively remote from the ocean. No two of these will agree as to special features, and in quite essential details there will be such wide divergence that while one may be commendatory to the pitch of enthusiasm, another will discover minor drawbacks sufficient to make his report practically negative, if not actually unfavorable. One will assert, in the face of the fact that semi-tropic products—the orange, the olive, and the palm—flourish, and that the pineapple and banana mature their fruit in favored localities, that the climate is essentially a cold one. Another will as positively assert

that it is too dry and subject to scorching and tropic heat, while a third will insist that there is too great prevalence of damp fogs! Therefore, the casual visitor, who, from limited data and circumscribed observation, writes home of “the climate” of Southern California, as though it were homogeneous and he had learned all about it in a week or a month, will certainly mislead his readers and stultify himself. Of course there are general characteristics which are common to all localities; but these are so modified by the various conditions named, or by accidental deflections of prevailing air-currents, that there is notable choice between two spots separated by apparently inconsequential distances.

To the average Easterner the contrast between his homeland of at least seasonable verdure, of landscapes abounding in gracefully rounded hills, waving trees, and rippling streams, which never think of subsiding into courses of motionless but insatiate sands, and the uninviting approaches by which railways are generally obliged to sneak into a new and wild country, is often so sharp and unexpected that it is actually shocking. His extravagant anticipations, based chiefly on the intensely rose-colored circulars of advertising health resorts and land-agents—your regular land-boomer would discount Milton's description of the Garden of Eden—are as utterly unreasonable as they are impossible of realization. For years he has dreamed of stately palms, dense groves of oranges and lemons, of branching bananas, century plants reaching toward the sky, pampas plumes gracefully nodding in response to the softest and balmiest of sea-breezes—and all these are here, but they are not found everywhere!

To the imaginative and over-sanguine, and to the untraveled novice, this contrast is at first fairly stunning. Instead of the earthly Paradise of which he has been nursing visions, the long vistas of magnolia and palm avenues, the photographed views of loaded orange orchards and gracefully waving banana plumes, he sees along the immediate line of the railway whole townships of barren, burnt-looking hills, bearing only a stunted growth of sagebrush and cactus to hide their hideous monotony. This first impression is as irrational and pessimistic as the bombastic land-boomer's advertisements are optimistic and overdone; but it often sends the disgruntled victim back to his Eastern home, where he roundly disparages a country he visited without seeing, and damns with faint praise a climate he could not enjoy or appreciate on account of his senseless homesickness and mental jaundice.

Such a witness, whether he be a layman or one of the profession, is incapable of appreciating his own testimony, let alone that of others; for if cross-questioned he will admit that he saw the identical palms, orange groves, olive orchards, and century plants, the same luxuriant growth of calla lilies and trees laden with roses, reproduced from “actual photographs” for the illustrated manuals. He will also admit that the charm of perfect June weather pre-

ailed, that the air seemed quite as bracing as the most enthusiastic had claimed, and that in the way of equability without monotony, and mildness without enervation, no such climate had ever appeared even in his dreams.

Therefore when "one who has been there" writes of the *climate* of Southern California the only way to understand him or get at the value of his observations is to find out how much of it he has seen, and whether he was strictly in his right mind when there. What is still more important is to know which one of a dozen special climates, to be found in the vicinity, is being discussed. If one spends most of his time over at the magnificent Hotel del Coronado, on the delightful beach of that name, it means one thing. If he selects Florence Heights, in San Diego, although in full view of the hotel and beach named, a mild but decided contrast is experienced. If you drive out to Lemon Grove, or La Mesa, or El Cajon, quite as many more variations and modifications will be encountered; and if you extend your trip to Lakeside, Alpine, or the Julian Mountains, the contrast will have become radical and almost contradictory. The Government Weather Bureau at San Diego faithfully records and reports the meteorological readings at that point; but on an extreme day in midsummer a drive of 10 or 20 miles inland discloses a difference of as many degrees in the thermometrical readings, and of course all the other items fluctuate proportionately. Hence the Weather Bureau, as an index to this unique climate, is not only unreliable—it is positively delusive. This criticism may be pertinent to other localities; it is especially true of this coast, where all the conditions are so radically changed. In fact, it must be admitted that of all misleading scientific data, the records of the Signal Office take the palm. The physician or patient who selects a climate from a study of these official reports is certain to be cruelly disenchanted by a practical test and actual experience. Theoretical climates may be outlined with mathematical precision; but actual climates refuse to be charted from "official records," which go no farther than to establish the mean annual temperature, average rainfall, relative humidity, and character of the prevailing winds. In fact climate means so very much that is not even indicated in these official tables. It ignores latitude, sneers at thermometers and rain-gauges, and laughs at the contradictory prognostications of the barometer. In this, as in all semi-tropical countries, it is the thermometers that do the prize-medal lying. Patients from the East and North, accustomed to well-warmed rooms, make a great mistake by going to an "equable" climate with the expectation of finding warmth to a degree that will enable them to throw off their flannels and treat the "slight changes" with indifference. On the contrary, they should fortify themselves with extra flannels, and insist on having facilities for warming their rooms whenever the sensible temperature requires it; for the sensible temperature, and not the

scientific one indicated by the mercurial column, is the one they have to encounter. The difference between the two is frequently ten, and sometimes as much as twenty, degrees! Those patients, and even well people, who try to ignore this indisputable and apparently unaccountable fact, soon pay for their temerity through sharp twinges of myalgic or "rheumatic" pains from which they will continue to suffer more or less until the process of acclimatization has been fully accomplished.

Dr. REMONDINO, of San Diego, recognizes seven different climates in the State; but in truth, for the sensitive invalid, there are practically seventy times seven, and, if proper discretion be used, it must be a rare case that cannot find one that is both congenial and appropriate to its needs.

Helix, Cal.

Gay Paris.—We note in the weekly reports of the vital statistics of Paris that over one-third of the births are recorded as illegitimate.

Licensing Practitioners of Medicine.—The annual report for 1895 of the Regents of the University of the State was lately made public. An inspection of that part of the report which relates to examination of graduates for license as practitioners reveals the fact that but one graduate of the Woman's Medical College of the New York Infirmary has failed to pass these examinations since it was established by law September 1, 1893. This college heads the list, and the College of Physicians and Surgeons comes second in the percentage of applicants who passed the Regents' examinations and were licensed.

The Metric System in England.—It looks as if the old system of weights and measures is to be relegated to the past. The new Pharmacopœia will use the metric system. The Geographical Congress, recently held in London, has decided to plot a new world-map, in which the distances given will be based upon the kilometer, with longitude reckoned from Greenwich.

A committee of the House of Commons has reported in favor of the adoption of the metric system as the official standard, and urges that, meanwhile, the study of this system in the public schools be made compulsory.

The Parrot Disease.—The question of infectious parrots, which made so much stir in Paris two years ago, is presenting itself anew. At Versailles several persons have recently died, apparently from the same malady, which was brought into Paris in 1893 by exotic parrots. At that time there were several local epidemics of infectious pneumonia, resulting in many deaths. The disease attacked not only those who had bought the parrots, but also the neighbors who had touched the birds. The inquests made upon the first fatal cases led the Council of Hygiene to pronounce the matter a simple coincidence.

A further study, however, resulted in a retraction of this statement. NOCARD has recently succeeded in isolating the specific germ, and thus placed the etiology of this malady beyond the reach of doubt.

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CIVIL-SERVICE IN THE CITY HOSPITALS.—The application for a writ of mandamus directing the Commissioners of Public Charities to hold Civil Service examinations for the appointment of physicians to the various city hospitals was denied by Justice ANDREWS, of the Supreme Court, on Friday of last week.

The ground for the denial of the writ is that these physicians and surgeons do not come within the meaning of the Civil-service acts, since they receive no compensations, so far as *pecuniary* benefits are concerned. The positions, it is held, are purely honorary. This decision is probably sound law, and yet such a distinguished counselor and jurist as Mr. HORNBLOWER, after mature consideration of the claims of the appellant, determined that there was just ground for demanding the issuance of a writ against the Commissioners, and we are informed that many gentlemen learned in the law agree with him. While this decision may be taken, in all probability, as final, it appears to be an instance where law and common sense, or *equity*, are at variance.

The learned judge who rendered the decision is reported as having added the words: "It is inconceivable to me that the legislature should have intended

that the most eminent members of the medical profession should be subjected to the indignity of an examination, either competitive or non-competitive." We question whether the Legislature of this or any State cares the slightest for the feelings of the most eminent or the least eminent of the medical profession where the good of the community is concerned. If it were a fact that these positions are held or will be held by the most eminent members of the medical profession, these gentlemen should be the very last to object to showing their unquestioned qualification for the position; indeed, their very eminence should lead them to pass such a test with the greatest ease. The truth of the matter is that, under the late reform "deal," whereby many eminent men were removed from positions in these public hospitals, and many men who were not alone not eminent, but were as yet not fairly on the road to becoming such, were substituted, the object of the promoters of the "deal" was not to secure the best talent for the hospitals, but to enhance the prestige of the various medical schools with which they were connected.

Now the reasons why medical men seek positions in the public hospitals are twofold: In the first place, we believe that interest in the welfare of the suffering poor actuates the vast majority of applicants; and, in the second place, we know that the securing of these positions enables the medical man to improve his powers of observation and his methods of treating disease. Every medical man stands in need of such opportunities and desires to do his share toward alleviating the lot of the sick poor. It is an open fallacy to grant for one minute that only those who have acquired eminence, or have had it thrust upon them, should be entitled to these benefits. As a rule, these eminent men—whether by acquisition, merit, or birth, already possess in the incorporated private hospitals opportunities for study, teaching, and for doing their best towards the poor in suffering and in disease. The sum total of the deal was the shutting out of the vast body of the profession from hospital privileges, whose rights are as well proven and whose claims are as great. It would seem then a fair solution of this question to make the positions competitive, irrespective of political or medical-school influences. If any medical man did not think it consistent with his *dignity* to stand the competitive test, he alone would be the loser and the hospital and the profession the gainers.

In one sense, the BULLETIN is glad that a legal opinion has been secured in regard to this civil-service question. The door is now open for the consid-

eration of the question of appointments to the public hospitals from the standpoint of *equity*. It is a question which will not down. The school or schools, the man or men, who fathered the late deal have not thereby gained repute, and have lost ground in the estimation of the profession. When the true history of this deal is unearthed and published, as it surely will be, the stigma of disloyalty to colleagues will be placed where it belongs, and neither legal decision, nor flimsy words in palliation, from politicians, whether lay or medical, can efface the stain. No profession in the world should stand closer together, for the right and against the wrong, than that of medicine, and yet the verdict will be that never in the history of the profession in the city of New York did a bird so besmirch its nest as happened last fall under the name of *Reform*! The BULLETIN is informed that, since the late upheaval, a quiet and determined investigation has been set on foot with the end in view of placing the onus of the deal where it belongs, and before long we will enlighten the profession in regard to the proper status of the question. Meantime, we would urge upon all professional men the desirability of devising some method under which the medical man, irrespective of school affiliation, may secure, if he can prove his competency, a position in the public hospitals either for life during good behavior, or else for a limited period of time. The latter would be the preferable arrangement since thus eminent men would be spared the trouble of growing musty in the service of the poor, even though they thus acquire the reputation of having died at the post of duty!

OHIO FALLS IN LINE.—Ohio physicians are feeling jubilant over the passage of a law to regulate the practice of medicine in that State. The BULLETIN offers its hearty congratulations!

COMMERCIAL OPTICIANS' DIPLOMAS.—The February number of *The Refractionist* contains an editorial on the practice of jewelers and opticians "tinkering with refraction work," in which it quotes from a letter of Dr. SAMUEL D. RISLEY, his confirmation of the belief, there expressed, that the so-called diplomas from all sorts of schools are bringing ophthalmology into great disrepute. The BULLETIN is cognizant of the fact that a number of optical-goods houses styling themselves "Optical Institute," "Optical College," etc., give instruction in refraction of the eye, and grant diplomas for a fee, which is subsequently deducted from the first bill

of goods. We have cognizance of an instance where a diploma was issued that graduated a man in the "Art and Practice of Theoretical and Applied Optics," who had not attended one hour's instruction, and whose previous knowledge was not inquired into by them, and in fact was not known to them.

What the BULLETIN would like to know is why the laws of the State of New York are not construed to cover instances of such flagrant impositions upon the public health. We concur fully with Dr. RISLEY that the practice of "prescribing of glasses by other than registered physicians should, by legal enactment, be made a misdemeanor subject to fine."

AN ABORTION MILL.—There was recently arrested in the City of New York a woman who on a number of previous occasions has been in the hands of the legal officers of the county for the alleged offense of inducing abortion. On each occasion, presumably from lack of evidence, this woman has been discharged. In connection with her last arrest it was stated in the public press that she made it her business to commit abortion. She practically so advertised in the public press—at least in those journals the moral tone of which is at such low ebb as to admit advertisements of this character. The question arises, Why, when noted abortionists are repeatedly arrested, is it always impossible to secure evidence strong enough to warrant swift trial, swift conviction, and adequate punishment? We have submitted this question to a gentleman not alone learned in the law, but also, from his official position, capable of giving us a satisfactory answer, and in an early issue the BULLETIN will publish this answer.

The profession at large is directly interested in the suppression of the vile creatures, be they men or women, who, aside from moral grounds, subject women to the risks associated with the emptying of the uterus at a stage when the ovum is not ready to be shed, especially since the police seem only too willing, assisted sometimes by that relic of barbarism, the coroner, to arrest reputable medical men when the evidence is hardly worthy of the name of *flimsy*. It is a long time in this county since a professional abortionist has been hurried to Sing Sing. If we mistake not the last sinner there deposited was the man who, for a lifetime, flourished in Harlem. True enough, recently the "specialist in diseases of women," who was so fond of flooding our mail with his professional cards, was finally brought to trial,

after the indictments hanging over his head had become fairly musty, and when this had been accomplished it was found that the bird had flown, having "skipped" his bail. If any explanation for these facts can be determined, the BULLETIN and the profession will be glad to have it, and possibly our special correspondent, preparing his article on the subject, will be able to answer it satisfactorily.

TRAINING-SCHOOLS IN INSANE HOSPITALS. — It has long been a matter of speculation and discussion among alienists and neurologists just how much special training should be given to the attendants in State Hospitals for the Insane. A few years ago this class of hospital assistants was designated as keepers; lately we have swung to the antipodal of this position, and we now call them attendants, or nurses. How far we shall be justified in making this radical change, time and the new conditions will indicate. These asylum attendants do not merit the name of nurse, as popularly understood, if it is intended that they shall compete with what is properly called a trained nurse. Few, if any, of these attendants have had any regular disciplinary course in caring for the physically sick, such as are found in any of our large general hospitals of this city.

In a few isolated cases, a provision has been made for training these attendants in a general hospital in connection with their regular asylum experience; but at best this course only covers a service of a month or two, and we all know that such a limited time spent in any general hospital falls far short of a competent and thorough training such as we should expect a nurse to possess in caring for our cases of typhoid fever. Competent authorities of to-day have stated that there is a constantly growing tendency to over-train in certain directions in these training-schools. Many times the knowledge imparted to attendants in the lectures is not only unnecessary and undesirable, but also positively deleterious both in its significance and application. When the duties of the average hospital attendant extend beyond the bounds of gentle care and protection of the helpless insane and move out into the broader field of neurological, psychiatric, and obstetrical sciences, it is alike foolish and non-essential. If more of the physician's zeal were shown in studies of pathology and etiology of insanities, it would make equally as good a showing in the annual Asylum Report.

It is not only unjust to expect a thorough knowledge upon such extraneous subjects and their application to individual cases, but it is also a very

injudicious plan for the attendant to fritter away attention and study upon them. No amount of superficial training upon any of these extra subjects for attendants will make up for a lamentable deficiency of early education, for the lack of which only too many attendants are conspicuous examples.

It is true that the field of caring for the insane is a large one, but under the present system of asylum care it is more apparent than real. Many are induced to enter training-schools in hospitals for insane with the idea that they will find ready employment in this line of work after their training is finished. They are only too often disillusioned by finding the opportunities for the care of private cases surprisingly small. Their experience has not been of a sufficiently thorough and practical nature in caring for the physically sick to render them able to compete successfully with nurses graduating from large general hospitals. They eventually return to the asylum whence they came, to exist as sort of supernumeraries outside of the training-schools, or they drift into other asylums, going from institution to institution, to become at last "asylum rounders."

We are fully aware of the fact that the training-school for attendants in asylums and hospitals for insane is, at best, but a half-solved problem; but we hope that as progress is made in its solution, more attention will be given to the cardinal virtues of a good attendant or nurse for the mentally diseased—viz., patience, kindness, tact, and skill.

FLOATING QUARANTINE. — That the proverbial ounce of prevention saves many pounds of cure was beautifully exemplified a few years ago in New York harbor. In spite of a steady stream of traffic from cholera-infected ports, vessels arriving with the disease aboard, the dread infection was stamped out, and not only New York, but the entire country, was saved from a devastating epidemic.

We recall this fact in order to lend weight to our hearty approval of the appropriation of six thousand dollars for the purpose of fitting up a disinfecting steamboat. Dr. DORV, Health Officer of the Port, has drawn up plans for a floating disinfecting plant. An old side-wheel steamer, belonging to the department, will be so altered as to have on either side a series of rooms for disrobing, bathing, and dressing. Women's quarters will be on one side,—the port side,—and men's on the starboard. Between the two will be arranged a chamber for disinfecting clothing, etc., either by steam or dry heat. After leaving the disrobing-room four persons

can be bathed simultaneously on each side of the vessel. Then, after being supplied with wraps, they can wait in the dressing-room until their clothing has passed through the disinfecting chamber. After the passengers and crew have undergone this treatment, the ship's bedding is put in the disinfecting chamber, and while it is being sterilized the ship itself will be disinfected by sprays of bichloride of mercury and sulphur fumes, conducted through hose from tanks on board the disinfecting boat. The sulphur fumes will be forced through hose from a suitably arranged furnace by means of a large fan driven by machinery. By this process, except in the case of the largest vessels, it is believed that passengers, ship, and crew can be disinfected and allowed to proceed within two hours.

The present method is by no means so expeditious. Passengers are now taken to Hoffman Island for disinfection, and delays of a day are common, and longer stops are not unusual.

STILL ANOTHER NEW HOSPITAL.—This is surely an age of progress, in which humanitarianism or but poorly concealed self-seeking is constantly searching out some new means of making the sick well, the aged young, or the old new. We have special institutions without number for the particular care of every ill, and every part of the human frame; we have hydropathic, electro-therapeutic, and veterinary institutes by the score; homes for aged ladies, and refuges for unfortunate cats. We daily watch the progress through our streets of the ambulances which carry wounded animals, and that which tenderly conveys the advertisement of the oxygen manufacturer.

It has remained, however, for some philanthropic and enterprising members of the goldsmith's guild to establish the New York Horological Hospital. For some years past there has been a little band of earnest, self-denying men, who have daily climbed from floor to floor of our great office buildings, ministering to the wants and infirmities of these very important members of modern society; but until now no one has been sufficiently public-spirited or ingenious to devise the plan of founding a hospital for the care of those individuals too far overworked or broken down to satisfactorily continue their labors.

What one of us has not some friends of this class who show indications of becoming rickety, or tell the time of day in asthmatic whispers, or pace off the hours with ataxic gait—one and all of whom

would profit by a brief sojourn within the hospital walls and a thorough course of some non-proprietary regulator? We cannot as yet learn that a Board of Governors has been installed, and, until such a move is made, we presume there will be perfect harmony within the corporation, and that the Medical Board will be enabled to make, unimpeded, such requisitions and improvements as shall be deemed necessary in the march of progress.

It is too early, however, to judge of the future of this struggling institution, but we see opening before it an attractive vista of possibilities. We can picture the day when it shall have come to be the fashionable fad of the hour, and its attractive catalogues are spread broadcast through the land, heralding the names of its wealthy patrons, with the announcements of the establishment of "Angelina wards" and "Marietta beds"—of the founding of post-graduate departments which shall echo to the tread of feet from north and west and south—of the building of a maternity annex, in which bright and tiny young horologs shall be ushered into the world, to be pressed to the bosoms of elderly unmarried patronesses.

But it is much too soon to think of these things. There is as yet no board of lady visitors, no endowment, no assistance from State funds. Though such fond hopes may nestle deep in the hearts of the pioneers, at present the institution will be carried openly forward upon every-day commercial principles.

PRACTICAL SUGGESTIONS in reference to personal prophylaxis have been for the past decade advanced by men experienced in the management of contagious diseases. Many views on this subject have been presented before sections in various societies, and attempts made to institute some rational method whereby the parents of children could be impressed with the importance of comprehending what contagion really means, and be induced to carry out simple, practical, every-day rules in reference to hygiene and individual cleanliness. Among pediatricians the subject of prophylaxis has received considerable attention, and much that has been advanced of real weight, value, and interest to the community at large has been lost in the few journals devoted to children's diseases or some other special journal. Too little of what we now know to be essential to the maintenance of health and prevention of contagious disease in children has been promulgated through the columns of medical journals in general.

GENERAL MEDICINE

Department Editors

WILLIAM CHARLES GUTH, M.D.

and

HENRY TURNER BROOKS, M.D.

Collaborators

ADOLPH ZEH, M.D., ADOLPH BARON, M.D., JOHN HOCH, M.D., WILLIAM VISSMAN, M.D., WILLIAM Y. FINCH, M.D., GEORGE W. BLANCHARD, M.D.

Mechanical Treatment of Coryza.—SCHNEE (*Revue de Laryngol., d'Otol. et de Rhinol.*, Nov. 1, 1895)

This mode of treatment consists in regulating the changes in the mucous membrane by striking with a rubber hammer upon the terminal branches of certain nerves which are in direct connection with the lining membrane of the nasal cavities.

The naso-ciliary nerve, a branch of the first division of the tri-facial, divides into two branches: one which is distributed to the covering of the septum and the turbinated bones and integument of the lower part of the nose; the other supplies the skin of the upper part of the nose and the region around the inner canthus.

The author's treatment rests upon the principle experimentally established by Goltz: Light shocks continued for a short time cause contraction of the blood-vessels; stronger and more prolonged shocks produce dilatation of the vessels and cause a greater flow of blood to the part.

It follows, then, that light blows, frequently repeated, are suited to the acute catarrhs—for instance, in those coryzas following closely upon a chill. Stronger and more prolonged blows are indicated in the chronic conditions.

The regions struck are: the part of the forehead just above the root of the nose and extending laterally to the middle of the eyebrows; all of the external surface of the nose and a little of the cheek below the inner third of the orbit.

The shocks ought to be followed at once by friction with the thumb and index-finger upon the nose, the strokes running from the root to the tip. If the skin be dry, the fingers should be greased.

On the Digitalis Group and Their Use in the Treatment of Disease of the Heart.—GEORGE W. BALFOUR (*Brit. Med. Journ.*, No. 1824, 1895)

The fundamental action of the members of this group is to increase the elasticity of muscular fibre, so that it expands more slowly and contracts more perfectly. The effect of this upon the heart is to cause it to dilate more slowly and to empty itself more completely, thus preventing residual accumulation and counteracting any dilating influences.

Besides the general action on the muscles, each of the members of this group has a common action on the heart, coupled with specific differences of its own. For example, digitalis acts powerfully on the heart and arteries, and less so on the uterus and bladder, while ergot acts energetically on the uterus and bladder, and less so on the heart and arteries. Prof. FRASER says that strophanthus acts powerfully on the heart, and but slightly on the muscular fibres of the arterioles. From the absence of any marked constriction of the arterioles, any rise in the blood pressure following the use of strophanthus must be due to ventricular action only, says the author, and is not, therefore, persistent, and can only feebly affect the muscular metabolism.

It is no wonder then that when the drug is with-

drawn the heart is not found to have received permanent benefit, but remains pretty much as before. Strophanthus forces on the ventricles an increase in the strength and duration of the systole, which ceases with the action of the drug; its action is that of a cardiac poison and not as a cardiac tonic.

Strophanthin has two advantages over digitalin; it is readily soluble in water, and is rapidly absorbed; it is thus available for hypodermic injection, and as it rapidly acts, it may be of service when the administration of any drug by the mouth would be of little use. The hypodermic injection of ether is more likely to be useful than either strophanthin or digitalin when a failing heart requires an immediate stimulant.

Digitalis in every form is absorbed with difficulty and only slowly excreted; hence accumulation of the drug in the system occurs if the dose be repeated at too short an interval, soon giving the symptoms of poisoning. Deaths from digitalis poisoning in those otherwise healthy are among the rarest of occurrences, there being only a few on record. A case is cited in which 211 grn. of the powdered leaves were taken within five weeks before the fatal result. During four of these weeks there prevailed sickness, diarrhea, faintness, and slow pulse. The author, in many years of experience, has never seen any unpleasant result follow even a somewhat free use of digitalis. Saturation is more easily brought about in small and anemic individuals than in those who are more bulky and plethoric.

A tonic dose to improve the nutrition and increase the energy of a feeble heart must always be a moderate one, and only repeated after an interval sufficient to permit the preceding dose to be wholly excreted. The usual dose to secure this end is 1 grn. of the powdered leaves, or an equivalent of any of the other preparations of the drug, every 12 hours. Such a dose may be continued with safety as long as required, without risk of saturation.

When a heart is dilated as well as feeble and there is a considerable accumulation of fluid in the tissues of the body, a larger dose is required. The dose is moderate and quite sufficient when 3 grn. of digitalis, either in powder or infusion, are given every eight hours, and will prove a very efficient diuretic. Only in exceptional cases will larger doses be required, and then we must remember that the larger the dose and the shorter the interval between the doses, the more watchful we must be for symptoms of saturation. Such symptoms may be looked for as soon as 30 to 40 grn. of the drug have been ingested; these signs are diminution of a primary diuresis, slowing of the pulse, or nausea, or, more rarely, diarrhea. If the drug is stopped on the first occurrence of one or other of these symptoms, the patient will suffer no damage, nor will the physician ever be disappointed in any reasonable expectation. When symptoms of saturation occur, diuresis diminishes, and almost complete suppression may last for two or three days; diuresis then recurs and may continue till all the fluid is drained off, or it may be readily kept up by a moderate dose at regular intervals of 8 to 12 hours. Independent of any diuretic action, these cumulative doses, by gradually improving the tone and elasticity of the myocardium, not only enable it to resist dilating influences, but, in favorable circumstances, are able to restore a dilated heart to its normal dimensions.

Much larger doses than those indicated are frequently given without detriment. A case is on record of a young woman affected with mitral stenosis, who took for six years $4\frac{1}{2}$ grn. of digitalis leaves in

infusion night and morning, with nothing but continuous benefit. Without digitalis she was unable to work, her limbs were edematous, flashes of light dazzled her eyes, a rushing sound disturbed her hearing, her heart felt full to bursting, and her urine was suppressed. All of which symptoms vanished within a few hours after her medicine was repeated.

The author says digitalis may be beneficially employed in all cases of heart failure, whatever may be the cause or the nature of the concomitant lesion.

Since the days of WITHERING it has been known that when "the limbs in anasarca are solid and resisting we have but little to hope" from digitalis; but in such cases as soon as the tension is relieved by purgation, or local drainage from incisions, digitalis acts well, the rest of the fluid is absorbed and the heart improves. Where loss of arterial elasticity from any cause has produced dilatation of the left ventricle digitalis acts badly, and may even increase the dilatation unless combined with some vascular stimulant; but with this proviso it acts well, and is most useful in all such cases. Digitalis is said to act badly or to be even positively injurious in cases of fatty heart. Hearts diagnosed as fatty are as a rule only feeble and dilated; it would be a sad mistake, the author says, to be deterred from giving such hearts all the benefits they are so likely to receive from digitalis by the baseless dread of an unrecognizable chimera, and he further adds that he has never seen any damage accrue from acting on this principle.

The best preparations of digitalis are first, the powdered leaves, carefully prepared and not over a year old. The infusion ranks next to the powdered leaves; it seems to contain all the most active principles of the plant, and it lends itself readily to combination with vascular stimulants. Next to the infusion comes the tincture, which acts well as a tonic, and combines readily with other tonics; less readily with vascular stimulants.

Digitalis, if properly used with regard to the selection of the preparation and the size of the dose, will do everything that can be reasonably expected of it. It does good not so much because it is a diuretic, a sedative, or a stimulant to the heart, but because it maintains and improves its metabolism. Failure of metabolism is, under all circumstances, the great source of danger to the heart.

The Nucleins and Uric Acid Formation.—W. WEINTRAUD (*Berl. klin. Woch.*, 1895, No. 19; ref. in *Fort. d. Med.*, XIII, No. 23, p. 947)

The author begins with a review of HORBACZEWSKI's hypothesis of the relation of uric acid excretion to disintegration of leucocytes, upon which he aptly remarks: "As long as we possess no more reliable means of judging of the formation of uric acid on the one hand, and of leucocyte destruction on the other, than we do now, and are forced to estimate uric-acid formation from uric-acid excretion, and leucocyte destruction from the number of leucocytes in the blood of a peripheral vascular area, so long, and perhaps without much success, will we seek for proofs of HORBACZEWSKI's hypothesis."

In order to study the relation of uric acid and xanthin excretion to nuclein assimilation, W. replaced almost all of the nutrient proteid by calf's thymus (1½–2 lb. daily); he found a very pronounced excretion of uric acid by the urine. This induced him to undertake a 21-day series of experiments upon an adult. The urine was examined to determine the total nitrogen, the uric acid, the basic nitrogen, the total phosphoric acid; further, am-

monia, the relation of the mono- and double-acid phosphate to each other; finally, the nitrogen and phosphoric acid content of the feces. It was shown that food-stuffs containing nuclein are readily absorbed from the intestine of man, and that ingestion of the same causes a most decided increase in uric-acid formation and excretion. The uric-acid value sank immediately when the same amount of nitrogen was introduced in the form of flesh instead of in the form of nuclein. In order to meet the objection that the person experimented upon was possibly suffering from uric-acid diathesis, the author repeated the experiments upon two wholly normal young men with the same results. From this W. concludes that food-stuffs containing nuclein must be avoided in those instances where increased formation of uric acid is assumed to be the cause of the pathological phenomena.

In reference to the theory of uric-acid excretion he discusses the two possibilities; either new formation and disintegration of the leucocytes, or direct transformation of the xanthin bodies contained in the nuclein into uric acid. Distinct relation of leucocytosis to nuclein assimilation and uric-acid excretion could not be determined. On the other hand, the basic nitrogen excreted in the urine did not by far correspond to the amount taken with the thymus.

The author closes this valuable paper with the words: "As clear as are the results of the experiments reported, and as simple as are the consequences resulting therefrom in practice, the theory and nature of the processes underlying the formation of uric acid are quite as obscure as in the past."

Treatment of Typhoid Fever with Dead Cultures of the Bacillus Pyocyaneus.—RUMPF (*Verhandl. d. Con. f. inn. Med.*, Munich; ref. in *Fort. d. Med.*, 1896, XIV, No. 1, p. 13)

The author reports the favorable results which he obtained after injections of from 6–8 c.c. (1½–2, dr.) of dead cultures of the bacillus pyocyaneus in typhus abdominalis. Following an increase of temperature immediately after injection, he observed a rapid critical decline of the fever in about 80 per cent. of the cases treated, and a most pronounced effect in about 40 per cent. The latter, aside from the apyrexia, manifested itself by a decided improvement in the psychical state, profuse perspiration, and increased secretion of urine. Excepting an abscess formed at the point of injection, RUMPF observed no unfavorable concomitant action. The abscess formation can be avoided if, instead of a single dose of 6–8 c.c., a number of smaller doses are injected at different parts of the gluteal region.

The author believes the results of this form of treatment are not to be attributed to any specific action of the bacillus pyocyaneus cultures upon typhoid fever; he thinks it probable that a general irritative effect should be looked upon as the cause.

Diffusion of Poisons in the Cadaver.—FR. STRASSMANN and A. KIRSTEIN (*Virchow's Arch.*, 1895, 136, p. 127)

The authors sought to experimentally determine whether poisons introduced into the stomach are distributed to the remaining organs *post mortem*, and, if so, how this took place. The experiments were carried out with easily recognizable substances—gentian-violet, ferrocyanide of potash, and arsenic—upon the cadavers of animals and children. They found that the substances employed enter the neighboring organs from the stomach. Arsenic can

be detected with certainty in the kidneys, liver, etc., after the expiration of 12 days—probably earlier. If the left kidney contains poison and the right none, this speaks in favor of the introduction of poison into the stomach of the cadaver. Poison found in both kidneys during the first week indicates reception of toxic substance during life. During the first two weeks poison does not enter the brain from the stomach.

NEUROLOGY AND PSYCHIATRY

Department Editor
PEARCE BAILEY, M.D.
Collaborators

ALBERT WARREN FERRIS, M.D., LEWIS A. CONNER, M.D.,
THOMAS PECK PROUT, M.D., and L. PIERCE CLARK, M.D.

Is Paresis a Microbic Disease?—PETTIT (*Med. Rec.*, 1895, 48, No. 18)

In this paper, the author states that the observations were drawn from 1300 cases of paresis occurring at the New York City Asylum for the Insane, Ward's Island. He finds that the etiology of this form of insanity is yet very obscure; two-thirds of the paretics have been immoderate drinkers and at least one-fourth are syphilitic. Some have indulged in sexual excesses, but many have acquired the disease while in the legitimate pursuits of life. A not generally recognized fact about paresis is that it not infrequently occurs among robust children of phthisical parents. This gives the author reason to suspect that there is some connection between the two diseases, or that there is a general diathesis underlying both conditions. The question arises, in his mind, May not syphilis and phthisis, by the union of their bacterial causations, produce a new product which in turn, by its action upon the nervous system, causes general paresis?

The pathognomonic physical signs of paresis are few and variable. Every case should be diagnosed only by combining the physical and psychological symptoms.

The author thinks that the sensory areas are equally as early involved as the motor ones, and a careful study of the psychic life of the individual always brings the sensory symptoms into greater prominence. He dwells at length upon the facial expression of the paretic, and regards an asymmetrical loss of tone in muscle and skin to foreshadow a lack of cerebral stimulation, thus giving rise to a drooping expression to the eyes and a roundness to the facial contour. There may be a fixed, stony expression; a lack of change in facial mobility which characterizes normal mental acts. Later the facial appearance changes somewhat, and there is an increase of ideo-motor reflex action. In process of speech, the muscles of the face show a lack of co-ordination. The writer regards a clonus of the upper lip, although slight in character, and not always present, to be pathognomonic of general paresis. He regards the knee-jerk phenomenon with favor in the diagnosis of paresis, but states that it is of much greater value to the diagnostician when it is increased.

The writer regards "pin-hole pupils" as indicative of a long course for the mental disease, but states that it is not often found. The converse is not true.

Anomalies in the mental symptoms are quite common and the patient not infrequently recognizes his disease and is depressed, but these quickly give way before the progressive dementia. The ordinary

psychical course is first, mental deterioration, apathy and confusion of ideas; then follows a short period of depression of a homicidal or suicidal nature. This in turn is followed by true mental stasis and delusions of grandeur.

The writer finds less than 3 per cent. of paretics suffering from tabes; a much lower percentage than found in melancholiacs or demented. He regards their association in a case as a matter of coincidence. It is only a question of time before the disease will spread from the brain to the columns of the cord and *vice versa*; and as he says, "paresis is no more a respecter of the columns of the cord than of persons."

His autopsies prove to him conclusively that the nervous system is attacked first through the blood-vessels. In speaking of the duration of paresis, the writer states that twenty-seven months is the general average of his cases, but thinks this is the minimum average. In conclusion, as to the duration of general paresis, he makes the astonishing statement that a case of paresis under his observation has recently terminated after an existence of fifteen years. In the classification of the 1300 cases according to nativity, America was found to furnish nearly twice as many as any other country. The other nations ranked as follows: Germany, Ireland, England, and France.

In stating the age at death of paretics, the writer includes twenty-five who died after the age of sixty-five. Several died at the age of seventy-five and eighty. It would seem as though there were a fault of diagnosis here, or that the ages were not properly ascertained, most alienists putting the age limit at sixty, and rarely, if ever, extending over sixty-five.

Electricity in Graves's Disease.—RÉGNIER (*Pract.*, LV, 1895, p. 301)

Dr. RÉGNIER considers that electrical treatment has met with a large number of successes in this disease, and that it fulfils the principal indications by acting as a nerve tonic, regulating the circulation and stimulating the thyroid gland to increased secretion. Both galvanic and faradic currents are employed. The author then gives an account of the various methods of directing the current, as practiced by BARTHOLOW, ERB, and ZIEMSEN, and the last-named was the first to apply directly a strong galvanic current to the pneumogastric and cardiac sympathetic nerves. He placed the + pole at the nape of the neck and the — pole over the precordial region, with the result that the heart-beats became much less rapid. The direct application of the current to the thyroid gland has also been tried with some success, and all the authors who have tried the galvanic current in this disease agree that good and often rapid improvements result, and often in those cases which have obstinately resisted other forms of treatment.

With regard to the faradic current, good results have also been obtained; but its application to the cervical nerves has sometimes been attended by dangerous symptoms of syncope, and for this reason the author prefers the galvanic current, which he considers to be as efficacious. It has usually been thought that the beneficial action of electrical treatment in exophthalmic goitre was due to its regulating action on the circulation, and its calming effect on the nerves; but the author, reasoning from the effect of electrical currents on other glands, especially the stomach, thinks that its good effect in exophthalmic goitre is largely due to the direct influence it has on thyroid secretion.

MATERIA MEDICA

Department Editor

WILLIAM FANKHAUSER, M.D.

Malaria and Its Treatment.—H. KLEIN (*Ther. Gaz.*, XIX, p. 748)

In the pernicious form of malarial fever, recovery is impossible without prompt and energetic aid. The system must be saturated with quinine in the shortest possible time; here hypodermatic medication becomes necessary. The dose should be large—60 to 75 grn. should not be feared. The author recommends the hydrobromate, as in the following formula:

Quinine Hydrobromate	30 grn.
Ether	2 fl. dr.
Alcohol	$\frac{1}{2}$ fl. dr.

Fifteen minims contain 3 grn.; about ten injections of this amount, of 30 grn. of quinine, should be given. At the same time, stimulation is necessary. Alcohol, ether and camphor are of great utility.

If there is no amelioration in an hour, he injects 15 grn. more of the quinine salt in five injections. Usually the pulse rallies and grows stronger, the sweat becomes warmer, and the cyanosis disappears. If there is no reaction, the use of the injections should be continued, even up to a total dose of $1\frac{1}{2}$ dr. There is a great tendency toward relapse in the pernicious cases; and it is necessary to saturate the system in order to prevent it. For this purpose the author prescribes the following:

Quinine Hydrochlorate	1 dr.
Quinidine Sulphate	$\frac{1}{2}$ dr.
Alcohol	2 fl. oz.
Syrup	2 fl. oz.
Distilled Water	3 fl. oz.

Three wineglassfuls the first day after the attack; and two tablespoonfuls the following day.

During the convalescence it is necessary to feed the patient well, but to be careful not to overload the stomach. Meats underdone, boiled eggs, and nourishing wines should form the basis of the diet.

Treatment of Simple Grippe.—G. LEMOINE (*La Clinique*, II, p. 165)

The simple broncho-pulmonary form of grippe is considered as really a variety of ordinary bronchitis, and as not calling for any other treatment than the application of counter-irritants to the thorax and the administration of calmatives for the cough. But it sometimes happens that in a few days the bronchial catarrh runs into pulmonary congestion, which may be accompanied by hemoptysis. In such cases L. induces prompt revulsion by dry-cupping, morning and evening, or, if the patient is vigorous and the congestion severe, by wet-cupping, and by applications of mustard poultices and very hot foot-baths. Then he administers quinine and ergot, giving 0.5 gme. ($7\frac{1}{2}$ grn.) of each in a cachet every morning. If the hemoptysis is considerable, he resorts to injections of ergotin. The author is adverse to the use of ipecac, for the latter drug exerts a depressing action, which is especially to be avoided with grippe patients. In case the congestion is very marked, 200 to 300 c.c. ($6\frac{1}{2}$ to 10 fl. oz.) of blood may be removed, and the patient subsequently stimulated by injections of caffeine or ether. Lukewarm baths are indicated where nervous phenomena are especially marked.

Blisters should not be applied, the author maintains, nor are expectorants indicated, as the bronchial catarrh diminishes as soon as the congestion appears. However, if indications for their use are present, one of the following cachets may be given three to five times a day:

Dover's Powder	2 gme.
Powdered Squill	1 gme.
Dispense in 20 cachets.	

Jaborandi as a Diaphoretic.—N. C. MITRA (*Med. Age*, 1896, XIV, p. 9)

Dr. M. maintains that jaborandi is indicated in all those diseases in which the use of a reliable diaphoretic is required, but where the depressant action of the drug upon the circulation is not contraindicated. It is scarcely ever used for its diaphoretic effect in fever, its depressant action being a great deterrent. The diseases in which its action is best utilized are those of the kidneys, and then only when the function of these organs is disturbed from some temporary cause, as in acute Bright's disease, where a sudden chill or exposure contracts the arterioles of the skin, and the blood thus driven off is thrown upon the kidneys, which in consequence become congested. This congestion lessens the excretion of urine and causes albumin to appear in the latter. The administration at this stage of diuretics would aggravate the trouble by overstimulating the congested organs. The rational treatment, the author claims, consists in relieving the congested state by derivative action; then, when the organs are in a fit state, diuretics may be prescribed with good results. This action is best effected by the use of jaborandi given in sufficient doses. He prefers the tincture to the alkaloid, as the latter has a decidedly lowering effect upon the circulation.

He mentions three cases which recently came under his observation. Two were children with puffiness of the face and eyelids, but with no fever; the urine was albuminous. They were put on tincture jaborandi, and improvement followed in a few days. The third case, an adult, was also suffering with puffiness of the face and eyelids; and the urine contained a large quantity of albumin. He, too, was treated with tincture jaborandi, and in less than a week the puffiness almost disappeared and the quantity of albumin diminished by one-third. One week more of treatment caused the albumin to disappear completely, and the puffiness to go down entirely.

The next malady in which jaborandi is indicated, the author states, is uremia, and the best method of administration is in the form of the alkaloid—pilocarpine—given hypodermatically; but the effect must be watched with care.

In cholemia, where the excessive passage of the bile through the kidneys irritates the organs, and in consequence sets up a congestive state, jaborandi can be used with advantage to relieve the embarrassed action of the kidneys; this congestive state might bring on uremic poisoning if the organs were not relieved. In case of cholelithiasis, and uremic poisoning set up by jaundice, pilocarpine might be used either internally or hypodermatically.

Examine the Professors.—If preliminary education is a good thing for students, why not apply it to professors? We would suggest a State examination of all who profess to be professors. There would be a scattering in some quarters.—*Tri-State Medical Journal*.

SURGERY

OPHTHALMOLOGY, OTOTOLOGY, RHINOLOGY,
LARYNGOLOGY, DERMATOLOGY, ORTHO-
PEDIC AND GENITO-URINARY SURGERY

Department Editor

SAMUEL LLOYD, M.D.

GENERAL

In charge of B. FARQUHAR CURTIS, M.D., WILLIAM B. COLEY, M.D., E. M. FOOTE, M.D.

Mesenteric Cysts. — PAGENSTECHER (*Berl. klin. Wochenschr.*, 1895, p. 911)

PAGENSTECHER reports two cases of these somewhat rare tumors. The first appears to have been a chyle-cyst, although no examination of the wall was possible, on account of its intimate connection with the intestine, which compelled treatment by securing the cyst in the abdominal wound, and a secondary incision. The fluid was peculiar on account of its fecal odor, although the patient had no fever or other sign of inflammation, and there were no fecal contents in it, the odor evidently being due to absorption of fecal gases. The second case is considered by the author to be an instance of a cyst developed from a chronic inflammatory hyperplasia of a lymph gland, with hyaline degeneration, softening, and calcification, as was evident from the microscopical examination. Probably the origin was tuberculous infection. The cyst was the size of an apple, and lay in the mesentery, near the intestinal border, whence it was shelled out without injury to the vessels. Close to it was a similar, much smaller, cyst. The patient made a good recovery. These cysts are usually movable, and frequently mistaken for floating kidney. Echinococcus, serous, hemorrhagic, chyle, dermoid, and these softened gland cysts are all found here.

Treatment of Aseptic Wounds Without Bandages or Dressings. — JAMES MACKENZIE (*Brit. Med. Jour.*, 1896, I, p. 267)

The author believes that the requisites necessary to wound-healing may be secured without the bulky and excessive dressings now so much used by most surgeons.

The first essential for treatment—viz., to retain the parts at rest and in apposition—is effected by the use of buried catgut sutures. In place of the usual dressings a solution of celloidin is applied over the line of skin incision for half an inch on either side. This solution dries quickly and adheres with great tenacity.

The solution is made by dissolving one part of celloidin in four parts each of sulphuric ether and absolute alcohol.

The solution should be of the consistence of glycerine. The wound must be very carefully dried before the application of the celloidin, and should be first rubbed off with absolute alcohol. No bandages or dressings of any sort are applied.

In certain cases where it is necessary to get rid of effused blood, the writer adopts the following plan: Before the wound is closed, at the most dependent part a small hole is made in the skin, as far as possible from the edges of the wound; a rubber tube of sufficient size to fit tightly is passed through this opening. The outer portion of the tube, which is left long, passes into a bag made of gutta-percha and containing a sponge soaked in a strong antiseptic.

The mouth of the bag is glued to the tube by softening the gutta-percha with chloroform. The wound is closed in the way described. At the end of 24 hours the tube is removed and the opening plugged with antiseptic gauze. The writer treats all wounds in this way, even amputations and excisions of the breast; and he states that he has operated upon a considerable number of hernias, both strangulated and for the radical cure, all with the very best results.

There is undoubtedly a reaction against the very large dressings, yet we believe that few surgeons would at present be willing to abandon them entirely. No dressing at all is better than an imperfect dressing, as proven by BUROW (note SCHIMMELBUSCH, "The Aseptic Treatment of Wounds," p. 84), who, having previously lost one-half of his patients on whom amputation had been performed, decided to treat his cases without any dressings, and had a series of 94 cases of amputations, with a mortality of only 7.5 per cent.

GENITO-URINARY

In charge of GEORGE KNOWLES SWINBURNE, M.D.

Recognition and Treatment of Chronic Inflammation of the Prostate and Seminal Vesicles.

—H. FELEKI (*Centrbltt f.d. Krnkhtn. d. Harn- und Sex.-Org.*, 1895, pp. 467 and 512)

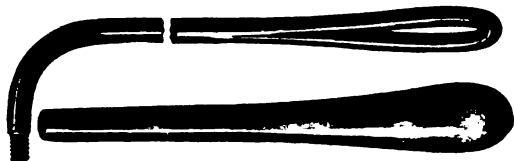
Those who have done much work in this direction will be apt to agree with F. that if we depend upon the ordinary symptoms given in the text-books, as impotence, prostaticorrhea, spermatorrhea, etc., for recognition of disease in these organs occurring as sequelæ to a chronic gonorrhœa, we shall overlook many cases in which, by careful examination, these organs may be proved to be affected. Further, that the endoscopic pictures of the posterior urethra figured as indicative of prostatic trouble are misleading, since we may oftentimes find an apparently normal posterior urethra and yet be able to establish the presence of disease in this organ, and, as a matter of fact, where we should be apt to find this endoscopic condition, we would not be apt to persist in introducing the instrument on account of the pain we should probably arouse, sufficient in itself almost to establish the diagnosis.

Believing that the distance from the anal orifice to the upper border of the prostate to be greater than what is usually accepted, F. had a series of measurements made upon the cadaver, in 32 instances without regard to age or presence of disease, and believes that he has proved this to be so. He finds the average distance to the apex of the prostate to be 6.3 ctm., to the base 9.2 ctm., and to the upper border of the seminal vesicles about 12 ctm.; therefore he concludes that we often do not reach the upper border of the prostate when we think we do. [Many will not agree entirely with him in this, since he apparently makes no note of the elasticity of the perineum—a point insisted upon by FULLER, who has shown that even in moderately stout men the finger tip may even be made to meet the opposing hand placed above the pubes for counter-pressure.]

For the recognition of prostatic trouble F. prefers the "three-glass test" of VON SCHLEN, which is to have the patient urinate in two glasses, still retaining a portion of the urine in the bladder, then by rectal massage upon the body of the prostate its contents may be pressed into the urethra (in some cases even into the anterior urethra to appear at the meatus), when the bladder is emptied into the third glass and its contents noted. F. has found, as have

others, that where shreds in the first two glasses may be found to contain no gonococci, these germs may be found in the expressed contents in the third glass.

The present best recognized treatment for this condition, as for seminal vesiculitis, is massage, and F. has devised and described an instrument for this purpose as being less disagreeable to both patient and physician, and believes that results are more quickly obtained by its use than by finger massage. The instrument is made in two parts, the rectal



INSTRUMENT FOR PROSTATE MASSAGE. ONE-HALF NATURAL SIZE.

portion, like an elongated pear, but fenestrated and smooth, 13 ctm. in length, and 6 ctm. in circumference in its widest part; where it meets the handle it is bent at an angle of 100°. The handle is 18-20 ctm. long. The two parts join by a screw. Curiously, he omits to state the material of which it is made. The *stance* may last from three to ten minutes, according to the sensitiveness, and he claims striking results in a comparatively short time in those cases which are already recognized as probably capable of benefit by massage. It does not necessarily replace other forms of treatment that have been well recognized as of use in these troubles.

ORTHOPEDIC

In charge of T. HALSTED MYERS, M.D.

Excision of the Patella.—KUMMER (*Jour. Am. Med. Ass.*, XXV, No. 19, p. 820)

KUMMER is quoted as saying that in cases of tubercular osteitis of this bone, provided the articulation still remains intact, to talcxtirpation is indicated, and it can be performed without impairing the gait of the patient, or markedly interfering with the knee-joint motion. It can prevent extension of the disease to the joint itself, and offers better chances of recovery than scraping out the focus does.

One of his patients, a woman 25 years old, two months after the operation could extend the leg well, but not quite so strongly as the other; could kneel with perfect freedom, and without pain, and could walk four or five hours daily, run downstairs, etc.

KAUFMANN has reported a cure in a lady 33 years old, who had fungoid osteitis for eight years. A month after operation she ran downstairs. Since then her knee has been perfectly movable and her gait normal.

KOCHER has operated in this way twice, and PAGE excised the patella for acute necrosis once, the patient recovering with a perfectly useful limb.

The Treatment of Abscess in Pott's Disease.—

TUBBY (*Med. Press*, No. 2947, p. 439)

T. advises the expectant treatment when the abscess is not tracking in several directions; when the recumbent position is followed by cessation of pain and improvement in the general health; when, after waiting some time, the abscess ceases to enlarge; and if the temperature remains normal and the appetite good.

He considers aspiration only of service when the contents of the abscess are entirely sero-purulent.

In the great majority of cases, however, caseous clots are found. He does not understand how absorption can be promoted by aspiration, and does not believe the injections of antiseptic substances are efficacious.

Incision and drainage, with or without irrigation, are efficient if the abscess is not tracking in various directions, but in the latter case the result is frequently unsatisfactory.

The method advocated by TREVES and others of removing sequestra is easily applied if the laminae, transverse processes, and ribs are affected, but large sequestra in the vertebral bodies are seldom so accessible and so loose that a pair of forceps or the fingers working through a lumbar incision can dislodge them.

Complete removal of the sac by dissection, as recommended by CHEYNE, is very rarely possible, but should be attempted where feasible. Often abscesses in the pelvic fossa may be best reached by an incision, as if to ligate the external iliac artery by Astley Cooper's method.

Enlarged Bursæ About the Knee.—RONCALI (*Arch. di Ortop. and Brit. Med. Jour.*, No. 1814, p. 54)

The author describes seven cases of enlarged bursæ about the knee, six of which were operated upon with complete success. One of these, a man aged 25, fell on his left knee in January, 1893. Eight days after this the knee became swollen, and remained so for five months, then entirely disappeared. In August of the same year he noticed a swelling in the popliteal space, which was rapidly increasing, causing a sense of weight and weakness in the limb, but no pain or fever. The popliteal artery could be felt beating over the tumor; the swelling was seen to be divided into an upper section, as large as an eight months' fetal head, and a lower about the size of an orange. Pressure on the tumor caused no diminution in its size or alteration in the form of the joints. An incision was made over the tumor, and the bursa, with three crypts, firmly adherent to the posterior surface of the capsule of the joint, was removed. There was no communication with the joint. The patient was able to leave the hospital two months after, with perfect freedom of movement and completely cured.

EYE AND EAR

In charge of WILLIAM OLIVER MOORE, M.D.

Treatment of Insufficiencies of the Ocular Muscles.—PARK (*Jour. Am. Med. Assn.*, Vol. XXV, No. 19)

PARK summarizes his views as follows:

1. That following up one's cases for one or two years is necessary, and should be done in all muscular insufficiencies, to tabulate results for publication.

2. Those cases involving the recti muscles, occurring in hyperopia and compound hyperopic astigmatism of from 5° to 15° combined with errors of refraction, will generally all do well with their refractive errors corrected, muscular exercises, outdoor life, tonic treatment, and the temporary use of prisms.

3. Those occurring in myopia and compound myopic astigmatism require the use of prisms more constantly, and are not benefited quite as much by muscle-exercising as those occurring in hyperopia, etc. Tenotomies with advancements are generally more effective than in hyperopic cases.

4. Those occurring in constitutional, paralytic, and reflex cases require plenty of rest, out-door air, the temporary use of prisms, electricity, and general tonic treatment.

5. *Tenotomies are not necessary in most cases*, and should not be done until all other remedies fail.

6. That there are some cases of esophoria of slight degree that require nothing but rest to effect a cure.

Enchondroma of the Cartilage of the Upper Eyelid.—KEYSER (*Jour. Am. Med. Assn.*, XXV, No. 19)

The author reports a case with the above title in a woman aged 58. The tumor had been growing for two years, with no inflammation; it was hard, solid, and firmly attached to the cartilage. The lid was incised, and the growth shaved off; no microscopic examination was made at this time. In 1890 she returned with the growth much larger; it was again removed in the same way. In 1892 it had grown again and more nodular. Again the growth was removed, and as much as could be of the cartilage down to the conjunctiva removed. It did well for a while, but in 1894 the edge of the lid was carefully slit and the skin dissected back to expose the growth; the whole cartilage of the nodule on the nasal side was removed with the conjunctiva, while that of the temporal side was dissected out as much as possible without the conjunctiva.

Microscopic examination proved the tumor to be an enchondroma. It is reported on account of its very rare occurrence.

NOSE AND THROAT

In charge of JAMES E. NEWCOMB, M.D.

Representation of Abduction of the Vocal Cords in the Cerebral Cortex.—RUSSELL (*Jour. Laryngol.*, IX, 1895, p. 759)

After a synopsis of the conclusions reached by KRAUSE, SEMON, and HORSLEY, the author reviews his own experiments. He had previously found that it was possible to separate, in the recurrent laryngeal nerve, the *abductor* from the *adductor* fibers so that stimulation of one bundle resulted in abduction of the cord and of the other in adduction.

Such separation was therefore made in one nerve, and the adductor bundle was divided transversely, leaving the abductor fibers intact, after which it was found possible to provoke abduction in the cords of the dog on excitation of the prorean convolution in front of and below KRAUSE's adductor-center, the two being separated by the supra-orbital sulcus. The division of the adductor fibers in one nerve was found sufficient to allow this result to be obtained, and under these conditions excitation of the prorean convolution of either cerebral hemisphere resulted in abduction of *both* cords, while excitation of KRAUSE's adductor focus naturally resulted in adduction of the vocal cord, the adductor fibers of whose recurrent nerve were left intact. The advantages of being able to leave the adductor fibers in one nerve intact was great, as it allowed abduction and adduction of the vocal cord to be evoked on excitation of their respective cortical centers, at the same stage of ether narcosis.

Having once obtained evidence of the existence of this abductor focus in the dog, it became possible to evoke the movement in some dogs without adopting the preliminary measure of dividing the adductor fiber of one recurrent nerve. In such ani-

mals it was found that the movement of abduction could be best evoked from the anterior composite gyrus bowel the adductive center, and slightly behind the point on the prorean gyrus, from which it could be obtained when the adductor fibers of one nerve had been divided.

Both foci, however, were close together, with the supra-orbital sulcus separating them.

External Examination of the Larynx.—GERHARDT (*Arch. f. Laryngol.*, Vol. II, No. 3, p. 281)

The author enumerates in concise form the various diagnostic points which can be evolved by external manipulation of the larynx and the anterior portion of the neck. In severe dyspnea, from narrowing of the caliber of the larynx, the latter manifests strong movements synchronous with respiration, while in tracheal stenosis it is generally quiet. In the former case the head is generally bent backward, while in the latter the chin approaches the sternum. In persistent stridor, the finger lightly placed upon the cervical portion of the trachea feels a corresponding "whirring," which in laryngeal obstruction is more often inspiratory, or at least stronger in inspiration, while in deep-seated tracheal trouble the after-felt whirring is more often alone expiratory or stronger in expiration.

GERHARDT also discusses the value of tracheal pulsation as an evidence of aneurism, and relates a new case of pulsation of the larynx.

The latter part of the article considers paralysis and spasm of the larynx in their relations to external palpation. A case is related of a woman who, after amputation of the thigh for sarcoma, suffered from metastatic deposits in the lungs and pleuræ. There soon supervened expiratory adduction of the cords with rapid tremulous movements. Autopsy showed a hen's-egg-size sarcomatous mass in the right frontal bone, which with the thickened dura had caused a depression about $2\frac{1}{2}$ ctm. deep in the right middle and inferior frontal convolutions of the brain. GERHARDT surmises that the tremulous movements of the cords were caused by the involvement of the right cortical center of the larynx.

Parachlorophenol in the Treatment of Nose and Throat Disease.—SCHMOURLO (*Arch. Internat. de Laryngol.*; fr. *Wratsh*, No. 17, 1894, VIII, 1895, p. 300)

The author has noted the effects of this remedy in ten cases of hypertrophic rhinitis, two of rhinoscleroma, four of granular pharyngitis, one of epithelioma of the vocal cord, and in five of laryngeal tuberculosis. In the latter a solution of from 25 to 50 per cent. was employed; in all the other instances the remedy was used in full strength. Conclusions are as follows:

1. Parachlorophenol does not possess the anesthetic properties of phenol. On account of the former's odor and bad taste, its application is very limited.

2. Applied to a mucous surface, it destroys the epithelium and provokes a strong reaction, not infrequently suppuration. It contracts the tissues and thus diminishes the hypertrophy. It is less active than chromic acid and especially than the galvano-cautery.

3. In laryngeal tuberculosis it provokes an edema of the tissues, a severe and lasting pain, and destroys appetite. It is far less useful than lactic acid, menthol, etc.

OBSTETRICS; GYNECOLOGY; PEDIATRICS

Department Editor

THOMAS S. SOUTHWORTH, M.D.

Collaborators

GEORGE G. WARD, Jr., M.D., GEORGE R. WHITE, M.D.,
EDWARD N. LIELL, M.D., WILLIAM B. NOYES, M.D.

The Diagnosis of Simple Flattened Pelvis in the Living.—AHLFIELD (*Zeit. f. Geb. und Gyn.*, XXXII, No. 3, fr. *Centralbl. für Gyn.*, 1895, No. 51, p. 1346)

According to the usual nomenclature, a rachitic pelvis is one that is flattened, and shows at the same time other signs of rachitis, such as divergence of the anterior superior spines, with widening of the outlet. A simple flattened pelvis is one in which the true conjugate is small, but has no other signs of rickets.

The author protests against this loose method of nomenclature, and claims that many of the so-called simple flattened pelves are, in reality, rachitic pelves.

He presents photographs of a pelvis with a true conjugate of 7.6 cm., but presenting no other deformity usually associated with rickets. The history of the case and deformity of other parts of the skeleton clearly indicate that the patient had suffered from a severe form of that disease, although the pelvis was not deformed, excepting by the shortening of the conjugate.

Simple flattened pelves, he thinks, are rarely seen, if we exclude cases of a typical rachitic deformity, like the one mentioned above.

Vaginal Hysterectomy for Pyo-salpinx and for Uterine Myomata.—E. W. CUSHING (*Bost. Med. and Surg. Journ.*, 1896, No. 4, p. 77)

In favoring this method of operating in preference to abdominal sections for the conditions named, the author gives his reasons therefor:

That a higher degree of technical skill is necessary on the part of the surgeon for vaginal hysterectomy is admitted; this skill gained, the operation can be done with greater rapidity than by the rival method.

The advantages and disadvantages of this latter operation are admirably set forth, and may well command attention.

The use of clamps especially lessens the time of operation, and thus the question of shock is less evident.

The various methods of performing morcellation—those of PÉAN, MÜLLER-QUÉNN'S, and DOYEN'S—are thoroughly set forth.

Remote Perineorrhaphy and the Value of the Buried Animal Suture.—A. H. MEISENBACH (*St. Louis Med. and Surg. Jour.*, LXX, No. 1, p. 9)

M. refers to the value of the above form of suture in lacerations of the perineum and other parts of the genital tract, occurring in both primiparæ and multiparæ.

That opposition has arisen to the animal suture is due to the fact that it may not have been properly sterilized, and thus may cause infection of the wound, especially if the sutures be buried. At present these objections are in great measure overcome by more reliable methods of sterilization. In a properly selected class of wounds, for instance, where the wound is funnel-shaped and easily coapted, no

form of suture gives better satisfaction, in the opinion of the author. He greatly favors it in plastic operations in general. The advantage claimed is that when a wound is united by an animal suture it need be disturbed less, and thus more favorable conditions are obtained for primary union. In the continuous buried animal layer suture no pockets are left behind that may be filled by exudates from the wound and give rise, by mechanical pressure, to disturbances, or to form a nidus for decomposition and infection. Based on these considerations, many gynecological surgeons have introduced it into their operative work. Especially is this form of suture indicated where operation upon the cervix, perineum, and vagina are to be performed at one sitting.

The writer gives adherence to the method of MARTIN, of Berlin, and describes the technique in detail. In the suturing of the surface previously denuded a strong, full-curved Martin needle is used. This is threaded with medium-sized catgut or kangaroo tendon, which should be about twenty inches in length. If a complete tear (into the rectum) exist, this is closed first, either by a separate suture or by the same suture that is used to unite the rest of the denuded surface.

In suturing the rectal tear, if a separate suture be employed, it should begin at the upper margin and continue downward.

If a single continuous suture be used, it is commenced at the upper part of the denuded surface and continued in one plane downward, including rectal tear in the same plane down to the anus, embracing the skin. Then a second plane is carried upward, a third plane downward, and so, to and fro, until the whole wound is sutured. Finally, in picking up the tissue in the various planes of sutures, we should pick up sufficient to insure a firm hold and the sutures must not be drawn too tightly, so as to merely approximate the sides of the wound.

In further explanation of the text, two illustrations are given.

Infective and Tuberculous Osteitis as Causes of Arthritism in Childhood.—N. C. MACNAMARA (*Med. Press*, 1895, No. 2953)

The extremities of the long bones are peculiarly liable during childhood to become the breeding-ground of certain forms of micro-organisms and to develop osteitis. The knee-joint, being one of the largest and most superficial articulations, is liable to subject its opposing bone-surfaces to pressure and to concussion, especially exerted on the trabecular network near the ends of the bones. These trabeculae contain red marrow, with its rich arterial supply, and have a sluggish venous circulation, delayed by the unyielding bone-channels and thin-walled venous capillaries in the marrow.

It is composed of temporary and brittle bone at the epiphyseal line, where growth of osseous tissue takes place. One or two small arteries from the diaphysis pass through the cartilage into the epiphysis; but the greatest blood supply is from the epiphyses. If any acute inflammation should occur at the juxta-epiphyseal line the products find an entrance into the medullary canal, and between the deep layer of the periosteum and the outer surface of bone. This shuts off the blood supply of the diaphysis and frequently causes necrosis of the shaft.

The deep layers of the periosteum, having been forced outward with the surrounding vascular structures, may live and form a casing of new bone, or it may die.

In children who have died of tuberculosis, the

structures of the juxta-epiphyseal line are particularly friable, and evidently were of very low vitality. Such tissues as these form a ready prey to invasion by specific microbes, especially if mechanical injury of the part occur.

In animals, such a local injury and an introduction of staphylococci aurei into the general circulation causes an intense acute inflammation of the structures forming the juxta-epiphyseal line. Local injury without introduction of staphylococci produced no acute inflammation.

A weak, city-bred child, suffering from a traumatism of the same place, and infected accidentally with the staphylococci, suffers from an acute inflammation of the injured bone severe enough to kill more than one-half of those who are attacked. In less severe cases the inflammatory action may be limited and produce a circumscribed and chronic abscess in the extremities of the bone, which may open into the knee-joint.

The treatment clearly indicated is to destroy the living organisms. Incisions into the periosteum do not reach the source of the disease. We must open the bone at the juxta-epiphyseal line and wash out the infected tissues with a germicide, subsequently maintaining free drainage. We do wrong to wait for pus to form, or to delay opening; for the micro-organisms causing the trouble multiply very rapidly, and delay is as fatal as in acute glaucoma or strangulated hernia.

Chronic joint disease in childhood probably depends on tuberculosis of the marrow contained in the extremities of the bones forming the joint. Examination of several cases of scrofulous joint disease, which had recently come to autopsy at the Westminster Hospital, showed tubercles and inflamed osseous tissue at the insertion of the extensor muscles, inflamed spots near the circumference of the neck of the femur, on the distal side of the epiphyseal cartilage, and no lesions in the ligaments, synovial membrane, or other joint structures. As a rule, chronic or scrofulous diseases of the joints in children are due to tuberculosis beginning in the cancellous tissue of the bone, much more frequently than in the articular cartilages or synovial membrane. Painful spots near the joints may fix the site occupied by the tubercle bacillus in the early stages of joint disease, even before the general pain and stiffness of the articulation on motion, or spasmodic and painful movements of the limb at night occur.

If an opening is trephined into the interior of the bone where these painful spots occur, allowing continued and efficient drainage, and they are thoroughly washed out with antiseptics, not only no serious injury will be caused to the bone or soft tissues, but the entire process may be aborted. After the operation, immobilize and apply antiseptic dressings, and change them frequently.

After six weeks omit extension during the day, and employ massage. In another ten days anesthetize, and employ careful passive motion.

The Etiology, Symptomatology, and Treatment of Endometritis.—GEORGE T. HARRISON (*South. Med. Rec.*, XXV, No. 10, p. 495)

The author speaks of endometritis as being the most frequent gynecological disease, its significance ranging from the slight annoyances of a simple uterine catarrh to the dread train of symptoms pertaining to a septic endometritis which has become the point of departure to a general infection.

With VON WINCKEL he believes in dividing all the varieties of endometritis into two classes:

1. Those in which the bacterial origin has not been demonstrated: (a) Endometritis due to disturbances in the circulation; (b) endometritis from toxic agents or from general infection; (c) endometritis post abortum or deciduale; (d) exfoliativa.

2. Purulent forms of endometritis of bacteritic origin: Gonorrheal, tubercular, septic, etc.

This classification, however, should only be regarded as provisional, as, with advancing knowledge, it may become necessary to transfer certain members of the first group to the second. Most of the forms grouped under the first class belong to chronic endometritis.

Group (a), comprising the various forms of uterine catarrh, may be observed not only in the young girl, associated with chronic constipation, imprudence of dress, neglect of proper precautions during menstruation, or imperfect development of the uterus; but most frequently in married women from lesions occurring during childbirth, want of proper treatment in the puerperium, retrodeviations, prolapsus, and myomata.

Under group (b) are placed endometritis glandularis and fungosa, mainly.

Endometritis post abortum or deciduale is considered separately, because of the various phenomena and sequences attending such.

In considering the second great class of cases comprehended under the term endometritis, those of micro-parasitic origin, three varieties are of especial interest, given in the order of their frequency: gonorrheal, septic, and saprophytic—that of tubercular origin is of rare occurrence, the tubes entering more frequently into genital tuberculosis.

A septic endometritis may be either localized or followed by a general infection. In the localized, the bacteria do not penetrate into the developed granulation tissues, the process being arrested at the uterine wall; in that with general infection the emigration of leucocytes is wanting, the streptococci and staphylococci in addition to saprophytic bacilli penetrating into the muscular wall, and may even pass through it to the peritoneum, and thus evoke a fatal peritonitis.

The two avenues by which the infective germs are carried farther, so as to produce a general infection, are by the lymphatic and the blood channels; it is only exceptional that the tubes are the means of carrying bacteria.

General phenomena accompanying acute endometritis (metritis?) and septic infection are entered into. As to chronic endometritis, the most important symptom as given is hemorrhage, either menorrhagia or metrorrhagia with the menstrual period either anticipated or its recurrence prolonged. Sensitiveness of the uterine mucuous membranes to contact with the sound is characteristic of endometritis, pain being evoked especially as the sound passes the internal os.

In the treatment of the various forms of endometritis, prophylaxis and asepsis, as regards the hands of the surgeon, instruments, the external genital organs, etc., are especially referred to.

In puerperal sepsis, when birth has occurred at full term, in the early days of the puerperium, intra-uterine irrigations, with a 3 or 4-per cent. solution of carbolic acid, or a 1 or 1½-per cent. solution of lysol is recommended, the use of the curette being delayed until the later days of the puerperium, unless there be evidence or suspicion of retained placental tissue.

The use of the curette, when indicated in any

form of endometritis, is to be followed by intra-uterine irrigation, by means of the Fritsch-Bozeman catheter, with carbolic, lysol, or sterilized salt solutions, and subsequent packing with iodoform gauze.

The author justly calls attention to the fact that recourse should not be had to the curette as a mere matter of routine, without due consideration of the aim and object of its use; nor should the curette be used roughly and incautiously. Attention is also called to the fact that an intra-uterine douche, during the puerperium, occasionally produces severe temporary circulatory disturbances.

In the treatment of gonorrheal endometritis the views and experience of Dr. W. R. PRYOR are given, as opening up to us a field of splendid therapeutical endeavor, in which the writer heartily concurs.

Finally, in chronic endometritis, comprising more especially all forms of endometritis fungosa and exfoliativa, in which the curette is indicated, preliminary gradual dilatation by means of graduated steel sounds is preferred to the two-bladed dilators.

Diet of Puerperal Women.—A. BLAU (*Orvosi-hetilap*, 1894, No. 4, p. 7; Abst. in *Monatssch. für Geburtsh. und Gynäkologie*, 1896, II, No. 1, p. 44)

The author carried out a series of experiments by putting patients on different diets during their puerperium, and noting the effect on their metabolism. The kinds of diet employed were milk, eggs, meat, low mixed diet, and full mixed diet.

The urine was not changed in quantity by the different diets, but the specific gravity was slightly increased by the exclusive use of meat or eggs.

Involution of the uterus was hastened by the egg, meat, and full mixed diets, while the child lost less in weight on the milk, egg, and full diets.

The quantity of milk was greatest on the egg and full diets, but the percentage of fat was larger on a meat diet.

The mothers lost less in weight on the full diet.

From these results, the author concludes that a full mixed diet is preferable in all cases of normal puerperium. After the third day the patient may take the same amount and same kind of food that any other healthy woman takes.

Infant Feeding—A Review.—A. JACOBI (*Pediatrics*, 1896, I, No. 1)

Nothing has been more successful in removing the dangers of intestinal disorders and the sources of excessive mortality in the last decade than the widespread custom of sterilizing (or Pasteurizing) cow's milk. Both are the logical development of treating milk by boiling, which the author has persistently advised for the last 35 years.

Boiling expels air. It destroys the germs of typhoid fever, Asiatic cholera, diphtheria, and tuberculosis; also the *oidium lactis*, which is the cause of the change of milk sugar into lactic acid and the rapid acidulation of milk, with its bad effects on the secretion of the intestinal tract. Some varieties of proteus and most of the bacteria coli are rendered innocuous by boiling.

But diarrhea is only a symptom of many causes, and cholera infantum itself is a name for many conditions. Babies at the breast are subject to cholera infantum, particularly in Southern climates and in public institutions.

The influence of external temperature is a very important factor. Babies taken suddenly from a hot railroad car to the deck of a lake steamer, from a warm bed to a draughty room, may develop a

catarrhal enteritis. The morbid condition of the epithelium caused by such sudden changes is the important cause of disease, because it opens the way to all sorts of infecting substances, whether they are poison in cow's milk or indigestible baby foods.

Germs of disease, according to SCHILD, may be found in the intestine of the newly born in 10 to 17 hours after birth. The meconium, originally sterile, is soon infected through the mouth and anus, from the linen, the bath, the air, and the blood itself. Even breast milk is not free from danger, bacteria having been frequently found in healthy breast milk even when no mastitis or other local disease was present.

A not uncommon germ, the so-called hay or potato bacillus, frequently found in dirty stables, and for that reason in milk from dirty cows, cannot be destroyed by ordinary sterilization without affecting the nutritious qualities of the milk. This in pure cultures causes diarrhea in dogs and peptonizes casein. These various dangers do not render futile the process of boiling milk, but merely indicate the danger of relying on a single preventative when there are so many causes for intestinal disorder.

Daily home sterilization is far preferable to risky purchase from wholesale manufacturers who cannot guarantee, because in the nature of things they cannot know the condition of their wares. The fermenting process is not always stopped by sterilizing, and butyric acid may be found in place of lactic acid, and gas produced giving rise to flatulency, even in the most elaborately sterilized milk.

Cream is often separated from sterilized milk which is exposed for sale, and this is very undesirable. At best the sterilization of milk will not transform cow's milk to mother's milk, for there is a chemical difference between the casein of the cow's and woman's milk. Cow's casein precipitates a "paranuclein" undissolved and undigested, after pepsin digestion, while the casein of woman's milk retains its "nuclein" in solution and is fully digested, and contains also an additional albuminoid not identical with either known casein or albumin.

For this reason exclusive use of sterilized cow's milk will not infrequently produce constipation or diarrhea, or even rachitis or scurvy in a young infant.

In order to finely divide and suspend the casein in cow's milk, and to add a nutritious element, cereals should be added even in the first days of infancy.

The author advises a free dilution of milk with 4 or 5 parts oatmeal or barley water to act in this mechanical way on the casein, to meet the extra demands of a growing infant for water, to avoid the danger of uric acid infarcts and other renal complications, which are by no means uncommon, and also to assist in pepsin digestion.

The methods of pasteurization as developed by FREEMAN, and of modifying milk, as carried on by ROTCH and others in the scientific milk laboratories of Boston and elsewhere, deserve the highest recommendation.

The centrifugal method of separating cream and milk carried on in these laboratories is valuable, for it makes it possible to produce an exact standard and safe grade of milk and cream, and thus makes the production of a carefully prepared milk in definite percentages of strength possible.

By producing on demand milk of any percentage of strength and composition, it is possible to meet the varied requirements of different infants.

The early use of a little animal broth or juice of meat and at times small doses of phosphorus (elixir phosphori), if after careful feeding the formation of muscles and bone is slow, is advisable.

SOCIETY MEETINGS

NEW YORK ACADEMY OF MEDICINE

SECTION ON OBSTETRICS AND GYNECOLOGY

February 27, 1896

W. R. PRYOR, M.D., Chairman

The Indications for Alexander's Operation.—

Dr. PAUL F. MUNDÉ: I believe I was the first in this country to perform Alexander's operation—*i.e.*, on December 12, 1884. I have now performed 97 operations, and the indications seem to me perfectly clear. Briefly stated they are as follows: (1) Retroversion or retroflexion of the uterus of long standing, where pessaries either do not maintain the uterus in position, or cause pain; (2) retroversion or retroflexion of long standing, associated with relaxation of the uterine supports; (3) prolapse of uterus and vagina where Alexander's operation is preceded at the same sitting by trachelorrhaphy or amputation of the cervix, and followed by anterior or posterior colporrhaphy or perineorrhaphy; (4) patient's desire to be cured; and (5) the necessity for keeping the uterus normally anteverted and elevated after an adherent fundus uteri and appendages have been restored to their normal mobility, either by tearing loose the adhesions, or breaking them up through an incision in the Douglas's cul-de-sac. If the adhesions are broken up without opening the cul-de-sac, the uterus and appendages may be kept in position by a sharply curved lever pessary; but when the cul-de-sac has been opened, only an Alexander's operation, or some other similar surgical operation, is practicable. The contra-indications for Alexander's operation are: (1) Adhesions of the uterus or appendages. This is an absolute and positive contra-indication. (2) The possibility of retaining the uterus and appendages in normal position, and making the patient perfectly comfortable by means of a pessary, unless, of course, the patient insists upon a cure. (3) Prolapse of the uterus and vagina, the cervix being down to, or outside of, the vaginal orifice, unless plastic operations for narrowing the vagina, and reduction of the weight of the uterus by trachelorrhaphy or amputation of the cervix are performed at the same sitting.

The round ligaments can always be found, but it is impossible to know beforehand whether they will be strong enough to suspend the uterus. In less than 10 per cent. of the cases the ligaments are not much thicker than a knitting needle, and too frail to be of much use. This is the only objection that I know of to Alexander's operation. There has been no mortality in my hands; I have seen no hernia, and there has been once only slight temporary irritability of the bladder. I have been informed of several of my cases, seen by other physicians, in which the retroversion had returned, but of my 97 patients I think I am justified in saying that 87 were permanently cured. I claim that opening the peritoneal cavity can never be *entirely* free from danger. Shortening the round ligaments does not interfere with the progress of gestation, as occurs at times after ventral fixation. I am opposed to Mackenrodt's vaginal fixation operation because it substitutes for a movable retroflexed uterus, an anteverted fixed uterus. In Germany, the birthplace of this operation, its popularity seems to be already on the wane. In all the cases reported in which labor has been complicated by this operation, the extreme anteversion of the uterus, the high posterior position of the external os, and the firm cicatricial ring in the anterior

segment have caused the dystocia. Two cases of Cesarean section have been recorded as having been made necessary by the operation of vaginal fixation.

The Indications for Hysterorrhaphy.—Dr. GEORGE M. EDEBOHLS: Events reported in recent literature have greatly modified the indications for the various retroversion operations. It is no longer a matter of technique, but rather a question of the amount of interference with the functions of child-bearing. STRASSMANN has reported a number of disastrous cases of labor following the operation of vaginal fixation. His list included two Cesarean sections. In the reported cases, the abnormal position of the cervix, above the pelvic brim, pointing upward, the undue expansion, and dangerous thinning of the posterior uterine wall, and firm fixation of the immensely hypertrophied anterior wall in the pelvis (the latter constituting the obstacle to delivery), were all chargeable to vaginal fixation. In New York there are perhaps 200 unfortunate women who have been subjected to vaginal fixation. MACKENRODT, the champion of vaginal fixation, has formally disowned the operation for the reasons just stated, but he has substituted another unpromising operation—attaching the uterus to the bladder. Out of 54 confinements at term, occurring after ventral fixation, there were four forceps deliveries, two Cesarean sections, two podalic versions, two transverse presentations, and one foot presentation, and a fatal case has been reported. This was one of my own patients, and her death was due to long standing heart disease and had absolutely nothing to do with the ventral fixation. I have performed ventral fixation 73 times, in 34 of which both ovaries and tubes were removed. Twenty-six of these patients were more or less liable to pregnancy, and eight became pregnant with the following results: One produced a miscarriage upon herself at the second month; one died of heart disease just before confinement at term; one died near term, septic from the retention of a dead fetus,—her physician stated that there was absolutely no relation between this and the previous ventral fixation; five were safely and easily delivered of living children at term,—all were head presentations. In a general way it may be said that if pregnancy follows ventral fixation, that part anterior to and below the point of fixation thickens, while that part posterior to and above that point dilates with the products of conception.

A slight drawing pain, beginning at the eighth month of pregnancy, and attributed to the shortening of the round ligaments, has been noted in a few cases of the latter operation. No other disturbances have been observed. I should say that vaginal fixation must be discarded altogether in women liable to future pregnancies, that ventral fixation must be viewed with great distrust, and that shortening of the round ligaments must be alone considered.

Vaginal fixation should never be performed on women liable to future pregnancies under any conditions when ventral fixation or shortening of the round ligaments will meet the indications just as well, or better. I have been guilty of only one vaginal fixation. Neither vaginal fixation nor ventral fixation should be performed on women liable to future pregnancies for the cure of uncomplicated retroversion of the uterus, with possibly one exception—when one of the ligaments tears during an Alexander's operation, in which case the abdomen should be opened, and ventral fixation performed. This is better than leaving the uterus held forward by one round ligament. The same may be said if the shortened round ligaments should slough after operation. An anatomical cure of retroversion can be

obtained by each of these three operations under discussion in 90 per cent. of the cases operated upon, but the quality of the cure is an entirely different matter. I think that a very important indication for ventral fixation is as an adjuvant to the combined operations for the cure of prolapsus of uterus and vagina. I have done it in this way 16 times, and two of the patients have successfully passed through pregnancy without a relapse or trouble. Ventral fixation is also useful after the removal of both tubes and ovaries, unless it be considered necessary to remove the uterus also. When only one tube or ovary is removed, and the uterus is very heavy, the round ligaments may be shortened. This field has been conceded hitherto to ventral fixation, but now a number of surgeons make an incision through the posterior vaginal fornix or through the abdominal wall, break up the adhesions, and, after closing the incision, shorten the round ligaments in the usual way. Another indication for ventral fixation is seen in cases of uterus unicornis causing some symptoms which cannot be relieved except by operation. I have at present such a patient who has been married over a year, yet, owing to extreme dyspareunia, sexual intercourse has never been consummated. Shortening of the round ligaments is not applicable to this condition, as there is only one ligament to shorten. Ventral fixation may be indicated under exceptional conditions in cases of adherent uterus with healthy tubes and ovaries, and in aggravated cases of sharp retroflexion.

The Indications for Vaginal Fixation.—Dr. H. N. VINEBERG: Unfortunate results in subsequent pregnancies have occurred after ventral fixation as well as after vaginal fixation. Vaginal fixation is a new operation, and difference in results is largely a matter of technique. The percentage of bad results in vaginal fixation has not been any greater than in ventral fixation. Out of 54 cases of ventral fixation followed by pregnancy, trouble was experienced in 11; whereas out of 52 cases of vaginal fixation followed by pregnancy, labor was complicated in 9.

I first began the operation two years and a half ago, and I operated upon 20 cases without entering the peritoneal cavity. I then limited the indications for the operation to mobile retroversions and retroflexions without any marked disease of the adnexa. About 16 months ago I changed the technique so as to enter the peritoneal cavity and break up the adhesions. Twenty-nine cases have been operated upon in this manner. Anatomical cures have been obtained in all the cases, for only partial relapse occurred in one instance, and that was in a case in which the method had not been carried out in its entirety. The cases have been kept under observation for from three to sixteen months. These cases comprise every form of backward displacement, and various diseased conditions of the adnexa. In congenital retroversion with adhesions, this operation seems to me to be contraindicated—indeed I doubt if we have any operation which will give good results under these circumstances. In all the cases but one in which there was subsequent interference with labor, the operation was done according to Dührssen's method, which I consider to be faulty, and have never followed it. There were altogether nine cases in which difficulty was noticed during gestation and labor. These cases have already been touched upon by the previous speakers. Three of my own cases have become pregnant. Two have gone to full term. Both had easy and normal labors. I attended one myself, and the woman was delivered in 2½ hours. The third case is in her seventh month. I examined her recently and found the position of the cervix

and uterus quite normal. Were it not for the cicatrix in the anterior fornix one could not tell that the uterus had been vagino-fixed. In the two cases the uterus, now some months after labor, is found in excellent position. Of the nine cases, a Porro operation was done in one, and a cesarean section in one; there were two cervical incisions and five versions. The difficulty met with consisted chiefly in a too firm attachment of the fundus to the vaginal wall, necessitating the increase in size of the gravid uterus at the expense of the posterior wall. This is just what might be expected from Dührssen's technique.

If certain precautions be taken in the technique, no fears need be entertained of meeting with any difficulty at labor. To be more precise, the anterior fixation sutures should be passed across the anterior wall of the uterus, 1 or 2 ctm. below the insertions of the tubes, and through the vaginal walls 1 or 2 ctm. below the meatus. Only two fixation sutures should be used. No scarification is to be made of the uterine wall. The sutures should be removed after three or four weeks. In my last two cases the fixation sutures were passed on either side of the uterus near its horn, embracing the round ligament and a portion of the broad ligament. These were carried through the vaginal flaps below the pubic arch at the sides of the pubic rami. This modification increases the safety of pregnancy and labor, for the uterus has the same range of mobility with this method that it has in the normal state.

I would formulate the indications for vaginal fixation, as I practice it, as follows: (1) In all backward displacements of the uterus, with or without adhesions, and with or without disease of the adnexa, in which surgical interference is demanded; (2) in cases of moderate prolapse of uterus and anterior vaginal wall in addition to the backward displacement; (3) in very stout women, in whom both ventral fixation and Alexander's operation are difficult of performance; and (4) where the abdominal parietes are thin and yielding. The operation can be performed in nullipara, and even in virgins. It should not be undertaken until a number of months (9 to 12) have elapsed after the puerperium.

Dr. NÓBLE, of Philadelphia: We must look at this subject both from the gynecological and the obstetrical standpoint. From the former, I should decidedly prefer suspension of the uterus to the other operations under discussion, because it is the simplest, is equally safe, and, in my hands, has given admirable results. But, from the obstetrical standpoint, I am afraid we must revise our generally good opinion of this operation. In two of my cases there has been difficulty in labor. In doing the operation I employed a method similar to that of Dr. EDEBOHLS, and firm union was obtained between the uterus and abdominal wall. At labor the anterior wall of uterus constituted a large obstructing tumor at the brim of the pelvis, imprisoned below the site of the abdominal incision. Dr. NORRIS has reported the first case, which was referred to by Dr. EDEBOHLS. In the other case the labor began by rupture of the membranes, without pains. As in the first case, the imprisoned hypertrophied anterior wall obstructed the brim. The obstruction was so great that version could not be performed, and a Porro operation was done. The patient died of general septicemia, the sepsis being present at the time the operation was done. I have formed no final opinion regarding the merits of suspensio-uteri, viewed from the obstetrical standpoint, as I am collecting a great mass of material relating to this subject. It is evident, however, that it must be viewed with suspicion from the obstetrical standpoint.

I have had the greatest satisfaction in combining hysterorrhaphy with plastic operations in cases of procidentia. I have done a considerable number of these operations, and there has been only one relapse, and that a very severe and unpromising case. Certainly 90 per cent. of the cases in which we would naturally do ventral fixation as one of the series of operations for procidentia the patient is over forty years of age, so that pregnancy does not play an important part. When the uterus is retroverted and adherent, and the appendages so diseased as to require removal, it is wiser, in my judgment, to remove the uterus also, rather than to fasten it to the abdominal wall. If we leave the uterus behind the whole pelvis is left raw, offering a favorable field for the formation of intestinal adhesions. If the cervix be left in a hysterectomy can be done as quickly as a hysterorrhaphy, and with a much better result. In cases of adherent uterus and appendages with but slight disease of the latter I am not sure that I will not do suspensio-uteri. I am inclined to think the technique is very important. A very slight suturing of the uterus to the abdominal wall is likely to give more favorable results than from fixation.

Vaginal fixation has not commended itself to me, theoretically, and practically its results condemn it in women liable to become pregnant.

Shortening of the round ligaments should be the operation of election in all cases of non-adherent retroflexed uteri. The operation has given me perfect results. It can be done by any skilled operator who will take the trouble to learn its steps from a master.

Dr. H. J. BOLDT: When the uterus is retroflexed and mobile, and causes symptoms demanding operation, there is no operation, it seems to me, which is equal to shortening the round ligaments. I have employed vaginal fixation frequently during the past six years, but I have not come to any definite conclusions regarding it. I commended the operation highly at first in the very class of cases in which I now again prefer to do shortening of the round ligaments. The results of vaginal fixation from late statistics, in the hands of surgeons abroad, have not impressed me very favorably; neither are my results such that I would praise the operation to be invariably performed in mobile retroversion or flexion.

Where the uterus is bound down posteriorly, if we can break up the adhesions forcibly under anesthesia we can shorten the round ligaments, but it is questionable whether we do succeed in sufficiently breaking up these adhesions, if these are broad (flächenhaft) and begin at the summit of the organ to allow of the uterus remaining in its anterior position. In cases of firm adherent posterior displacement, I prefer to open the abdomen and do a ventral fixation. In two of my cases one of the round ligaments broke off, yet in both the uterus has remained in good position. It is preferable to open the inguinal canal, and then the round ligament should be shortened until the horns of the uterus are brought to the internal rings.

Dr. ILL: The indications seem to me to be very plain. Alexander's operation is what is to be done in all cases of retroflexion or retroversion which cannot be kept in place by other means, or where the patient cannot be seen sufficiently often to admit of the proper use of a pessary. I have done the three operations, but I have given up Alexander's operation and vaginal fixation. I have now done about 90 ventral fixations with good results, and have reports of three cases of pregnancy with no complications. Nothing has been said about the liability of hernia after shortening of the round ligaments. During the last winter, I am told, 15 cases of

hernia, following Alexander's operation, were operated upon at the Hospital for Ruptured and Crippled. I have not seen one after ventral fixation.

Dr. J. RIDDLE GOFFE: I have had some little experience with all these operations. Until recently, for retroversion, with or without adhesions, I thought Alexander's operation the proper one. Where adhesions were present I opened Douglas's pouch, broke up the adhesions, brought up the uterus, and shortened the round ligaments by Alexander's operation. This has been very satisfactory to me with one exception—it left unpleasant scars. When vaginal fixation was introduced I thought that even this objection could be done away with, and hence I have undertaken this operation lately and have done it a number of times. I am ready to assert that, as far as an anatomical cure is concerned, it accomplishes it to my perfect satisfaction. Regarding the effect on a subsequent pregnancy, I have no personal experience, but the reports from abroad are rather discouraging. However, we must expect a few bad results after any new operation.

Regarding the technique, I should say that in the cases of long-standing retroversion the anterior vaginal wall is invariably shortened, so that it is impossible to throw the cervix into the hollow of the sacrum. In such cases the transverse incision is desirable, because in this way the anterior wall of the vagina can be lengthened to the extent of the length of this lateral incision. In all the other cases I believe in making the longitudinal incision in the median line.

Dr. E. B. CRAGIN: Until within the last six months it has been my custom when the retroverted uterus was freely movable, to perform Alexander's operation; if it were fixed, to do a ventral fixation; but in the last six months I have been trying vaginal fixation. I am not very well pleased with the fifteen operations that I have done. I have had a number of failures. With the exception of the last three cases I have not opened the peritoneum. I performed the operation to-day in conjunction with the removal of a pyosalpinx on one side. The woman was stout, and the operation for the pyosalpinx had been done through the vagina. I shall probably perform vaginal fixation in the future only as a supplement to some work already performed through the vagina.

Dr. A. PALMER DUDLEY: There is in my opinion, only one indication for Alexander's operation, and that is when the operator can assure himself that not only the uterus but the appendages are not adherent and not diseased. This is a pretty hard task in itself. No attention has been given in this discussion to the reflex symptoms produced in the bladder by Alexander's operation. If there is any doubt about the condition of the tubes and ovaries, I should prefer to perform an abdominal section and determine the true condition present. I do not think it is at all necessary to suture the uterus to the abdominal wall by salmon-gut sutures. The same suture that passes through the uterus should serve to close the abdominal wound and be removed after three weeks. It is not the suture which holds the uterus, but the fact that you have placed the organ anteriorly, and the intra-abdominal pressure holds it there without sutures. If, after breaking up the adhesions through an incision in the cul-de-sac, the uterus be placed in proper position, and gauze packing be employed, there is no occasion for doing an Alexander operation, for the uterus will remain in position. By an incision into the cul-de-sac one can also determine the condition of the appendages.

Dr. H. L. COLLYER: The fault I find with these operations is that extremes are taken. At first, everything was done by Alexander's operation, and in many cases of subsequent pregnancy either the ligaments gave way or a miscarriage was induced. I have observed three cases of hysterorrhaphy in which abortion occurred from the inability of the uterus to rise up in the pelvis. It seems to me that if the vaginal fixation is done properly, the results will be the best. By this operation adhesions can be readily broken up, and at the same time diseased appendages can be extirpated, when found necessary.

Dr. JOSEPH BRETtauER: I have never favored the operation of vaginal fixation, but I had thought it might be useful in one class of cases—*i.e.*, those of congenital retroversion; but it is just here that Dr. VINEBERG considers the operation decidedly contra-indicated. I think, however, that I shall try the operation in this very class of cases.

Dr. WHITE: Where there is a retro-displacement or descent of the uterus in unmarried women, and the uterus can be held up by an Alexander's operation, or by shortening the round ligaments through the abdomen, this treatment seems to me to be the best, provided the symptoms are sufficiently distressing to warrant an operation. The abdomen should be opened if there is reason to believe that the tubes and ovaries are diseased.

In the cases of women who have passed the menopause and are suffering from a retroversion or prolapse of the uterus, the shortening of the round ligament, as originally advised by ALEXANDER, seems to me to be decidedly indicated. I do not believe that any operation on the pelvic floor will keep a prolapsed uterus in place. The indication is to take in the slack of the normal suspenders of the uterus.

Dr. A. E. GALLANT: No reference has been made to the discomfort and pain following extreme shortening of the round ligaments. I recall a case of this kind in which the patient suffered a great deal more than before retro-displacement, and partial prolapsus had thus been corrected. In many cases this dragging on the ligaments producing pain, in one or both inguinal regions, is the chief symptom of the displacement, and if, by doing Alexander's operation or abdominal fixation, we are liable to bring about a worse condition, it were better to rely on the use of a pessary.

I have never seen a case of labor following the Mackenrodt operation, but have in mind a case seen when interne, at the Sloane Maternity Hospital, a IX-gravida, with pendulous abdomen, the cervix being completely above the promontory of the sacrum. This condition caused the mother so much discomfort that Dr. McLANE deemed it advisable to induce labor, which was carried out by Dr. TUCKER. In order to bring the head over the pelvic inlet, I stood at the patient's head, clasped my hands below the fundus, and by throwing my whole weight, when braced against the table, succeeded in bringing the fundus toward the normal position. After the head engaged a few strong pains caused the expulsion of a living child. Cases quoted by Dr. EDEBOHLS show that Mackenrodt's operation tends to bring about pendulous abdomen, with the cervix above the promontory, and must result in obstruction to labor.

The Chairman, Dr. PRYOR: As regards the operation of hysterocystorrhaphy, which I devised—sewing the fundus uteri to the curved ligament of the bladder—I will say it was intended for a certain class of cases in which we removed both annexa, and could not do hysterorrhaphy because of a short vagina. The operation is a good one, but was unfortunate in having to compete with a better,—

namely, removal of the uterus whenever both annexa were removed. I have, for that reason, only done it six times. But if, for sentimental or other reasons, I operated upon a patient who refused to allow the removal of the uterus when both annexa were sacrificed, I should certainly perform hysterocystorrhaphy if indicated.

I have, up to eighteen months ago, always performed hysterorrhaphy for adherent retropositions. Since then I have been able to cure all cases, except the congenital, by work applied through the cul-de-sac. If I were compelled to adopt one of the three operations under discussion, I might prefer Alexander's operation. But I do not like it, as I have thought I cured all my cases of retroposition, which were not adherent, by plastic work from the vagina.

The Mackenrodt operation does not appeal to me as proper, as it fastens the uterus too low. Hysterorrhaphy is objectionable, because it converts a pelvic into an abdominal organ, and fastens the uterus too high.

Dr. EDEBOHLS: While it is true that most of the troubles in labor have not followed the Mackenrodt, but the Dührssen operation, it is also true that MACKENRODT allows 10 per cent. of failures by his method. Theoretically it does not seem to me that the results should vary materially according to the different methods of operating, because no matter how we suture the uterus to the abdominal wall we cannot control the strength of the peritoneal adhesions. I have heard of several cases in which after shortening one round ligament the uterus has remained in good anteversion, even though the other round ligament has been broken, but it has seemed to me unsafe to trust to one ligament. Hernia may follow ventral fixation as well as Alexander's operation, and serious obstacles are encountered in vaginal fixation. I have not observed any special irritability of the bladder after either Alexander's operation or ventral fixation. Of the operations considered at this time, only Alexander's operation leaves the uterus free and unattached by peritoneal adhesions—an extremely important point. There is no record of trouble in pregnancy following Alexander's operation that is fairly ascribable to the operation; there is simply a dragging on the round ligaments at the eighth month. Notwithstanding the large number of Alexander operations, there has been no trouble in subsequent pregnancies, yet in the very young operation of vaginal fixation a number of complications in pregnancy have already been reported. Even if Dr. COLLYER has seen two cases of abortion after shortening the round ligaments, that does not speak against the operation. It should be remembered that Alexander's operation is not intended to prevent women from aborting.

Dr. VINEBERG: MACKENRODT has not given up the operation, as some here seem to think, for in his last paper, he quotes favorable opinions of a number of eminent surgeons. His present operation is nothing more than the old operation done under a better technique. The reason there is such a large number of vaginal fixations done abroad is that many surgeons are glad to find an operation which they can offer to their dispensary patients whom they have been treating unsatisfactorily for years by tampons. I think the reason there has been no trouble during pregnancy after Alexander's operation is that the uterus has been previously in a normal condition. Recent statistics show that there is quite a large percentage of failures after Alexander's operation, and even quite a mortality. Dr. JOHNSON reported

five deaths from the operation in Boston alone. I do not think that enough stress has been laid upon the danger of hernia after such operations. It seems to me bad surgery to open the abdomen and produce one weak point, and then perform Alexander's operation and produce two more weak points. The cure is worse than the disease in this instance. A woman runs more risks from the three probable hernias than she does from her retroverted uterus. In case of failure after a vaginal fixation the woman is no worse off, but after a failure with Alexander's she carries ever afterward two disagreeable scars and probably a double hernia.

CORRESPONDENCE

PHILADELPHIA LETTER

(From the BULLETIN'S Special Correspondent)

At a stated meeting of the College of Physicians, held March 4, 1896, Drs. KEEN and DAVIS, and Prof. MAGIE, of Princeton, gave "A Demonstration of the Clinical Value of ROENTGEN'S X-rays." Prof. MAGIE described and explained the apparatus used and the methods employed. He said that the high vacuum Crookes tubes with a high electric force gave the best results for surgical work, as the penetration was greater and the pictures, or skiagraphs, could be taken for diagnostic purposes in from one to twenty minutes. The thickness of the glass in the tubes does not play such an important part as he first supposed. The Rühmkorff coil he used was a very large one, emitting a continuous spark of eight inches, and has about five miles of wire; the smaller ones would answer for the ordinary Crookes tubes, but would take a longer exposure and still have less power to penetrate. He was now inclined to the theory that the rays were longitudinal vibrations and not molecular motion, as he had thought at first. He took three skiagraphs of a very robust man's hand during the day to locate a bullet. It was found just below the lower end of the ulnar, where it has been for the last 16 years. He exhibited these negatives and some others he had taken at Princeton. One of the latter was a hand of a gouty patient showing the enlarged joints, another was one showing the position of the bones in a base-ball finger. He took a skiagraph before the society in 15 minutes, and after developing it passed it around. This showed an ununited fracture of the middle of the radius and an old fracture of the ulnar. He then showed his skiascope, which was a tube covered at one end with a piece of cardboard and at its inner surface with the double cyanide of barium and platinum. With this he demonstrated the bones of the hand and lower part of forearm.

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A stated meeting of the Obstetrical Society was held March 5, Dr. E. E. MONTGOMERY in the chair.

Dr. FULLERTON read a paper on "Chronic Inversion of the Uterus, with Photographs and Specimen." She reported two cases. In one there was prolapse of the vagina and uterus, which was removed. She gave as causes in these cases laceration of the cervix, relaxation of pelvic tissue, and straining when lifting some heavy body.

Dr. J. PRICE read a paper on "Prevention of Post-operative Sequelæ and How They Favor Mortality, with Report of Cases." He said that a great many cases were allowed to wait too long before oper-

ation, which rendered the complications of shock, hemorrhage, and sepsis more common. Physicians often gave the excuse that there was some heart, lung, or kidney trouble, or too many adhesions, thus allowing the case to drift along until she reached some one who would operate. He believed the supra-pubic operation was the best, and that it should be complete. In the last four days he had had four cases with pelvic abscesses, with many adhesions. In these he opened the abscesses, flushed out the abdomen, and drained.

Dr. NOBLE said that in cases where there were pelvic abscesses with circumscribed peritonitis 25 to 30 per cent. would die if operated on through the abdomen. He thought that the vaginal route was the best for these cases. In his last five operated on in this way only one had died. In Johns Hopkins Hospital reports there were 33 cases with only one death.

Dr. MASSEY said he was glad to hear Dr. NOBLE'S views, for he had employed both methods, and he did not think that in delayed purulent cases an abdominal section was justifiable if the abscess could be opened through the vagina.

Dr. J. C. DA COSTA thought that in cases where the abscess was below the tubes the vaginal route was the best, and abdominal section should be reserved for the ones above the tubes and for tumors.

Dr. J. PRICE said that in cases of multiple abscesses the opening through the vagina may only let the pus out of one and leave it in the others; and besides, these patients always required a secondary operation, which gave a high mortality, as there was more danger of shock, hemorrhage, and sepsis.

Dr. W. E. PARKE read a paper on "Some Complications and Sequelæ of Gynecological Operations." His paper was a very long one devoted to the early complications and sequelæ, giving their causes, symptoms, and results. He discussed shock, hemorrhages, toxemia, sapremia, septicemia, peritonitis, phlebitis, intestinal obstruction, local abscesses, fecal fistulæ, thrombosis, emboli in the arteries, edema of the lung, pneumonia, cystitis, pyelitis, and suppurative nephritis. In mental aberrations, such as melancholia, an operation sometimes increased the trouble and even produced it in some cases.

Dr. NOBLE said that he thought a great many of the reported cases of pelvic hematoma were cases of infected pedicles. He spoke of an interesting case of phlebitis he had had lately that gave all the symptoms of sepsis.

Dr. J. PRICE said he was very glad to hear a paper on early complications, and thought they could be lessened if the operation was done early. He said that mania in women was generally due to dropsical tubes. He spoke of two cases that died suddenly. One was in his practice; she had done well for ten days after the operation, when she was removed against her will to another room. After being there for ten minutes she gave a scream and died in a few seconds. To prevent shock use strychnine for two to three days before the operation. In his experience phlegmasia occurred when there was a deep operation and not in septic cases.

Dr. NOBLE read a paper on "A New Operation for Certain Cases of Prolapsed Uteri." In the usual operation he amputated the cervix and did an anterior and posterior colporrhaphy. In one case, where there was a separation and prolapse of the posterior vaginal wall this operation failed, and he then did a hysterectomy.

Dr. W. R. WILSON gave a report of a case of abdominal pregnancy progressing to term, with speci-

men. His case had been under the charge of a student, and was admitted to the hospital, as she had carried her child over term, and was suffering from general discomfort and pain. She did not have any labor pains, so he induced labor by the introduction of a bougie. After the os was dilated the uterus was found to contain only blood-clots and decidua. The child could be outlined distinctly by abdominal palpation, and seemed to be near the surface. On opening the abdomen, he came to the sac, which, when opened, bled profusely. The child was quickly delivered, and, as he could not remove the placenta, which was attached to the uterus, he packed the cavity with gauze. She died two hours after the operation. The right tube was found obliterated.

Dr. J. PRICE thought this was an original tubal-pregnancy, and did not think any case was primarily abdominal. He said that cases of tubal-pregnancy were less fatal when the rupture occurred near the fimbriated end of the tube, and very dangerous when occurring near the uterus.

Dr. HARRIS said that, of the last 14 cases he knew of, 13 mothers recovered, and that the mortality of the children was high, since many had some deformity.

Dr. L. J. HAMMOND reported four cases of pelvic abscess following labor. He opened the abdomen, flushed and drained all the cases. The last one was in such a critical condition that the operation had to be delayed two days. This case died.

* * *

Dr. W. L. M. COPLIN has been elected by the trustees of Jefferson Medical College to fill the chair of pathology. Dr. COPLIN was graduated with the class of '86, and remained at the college, where he was an assistant in pathology until 1895. In that year he went to Nashville to take the chair of pathology in the Vanderbilt University, where he had the best equipped laboratory in the South. He will assume his duties here next autumn.

BOOK REVIEWS

Cutaneous Medicine.—A Systematic Treatise on the Diseases of the Skin. By LOUIS A. DUHRING, M.D., Professor of Diseases of the Skin in the University of Pennsylvania. Part I. Illustrated. J. B. Lippincott Company, 1895.

It is with the greatest pleasure that we welcome this latest and best book by the distinguished author who was the first American to publish a complete treatise on diseases of the skin. It is just 20 years ago that the first edition of Duhring's *Diseases of the Skin* was published, and it at once took the first rank in the medical schools of all English-speaking people. In the student days of the writer of this review there were but two books on dermatology in the hands of the students, and these were Tilbury Fox's and Duhring's. A second edition of Duhring's book appeared in 1881 and a third in 1882. Since then we have waited expectantly until he should choose to revise and enlarge his world-famous book. We feel repaid for our waiting when we study the work now before us.

The first thing that strikes us is the original idea of publishing a treatise on skin diseases in parts. The part now before us consists of 221 pages, and deals with the anatomy and physiology of the skin, and the general symptomatology, etiology, pathology, diagnosis, treatment, and prognosis of its diseases. No work by any one author with which we

are familiar, and we have read all the books on the subject of dermatology published in the last 20 years, is so complete and so exhaustive as the one now before us. The author has studied and digested the vast literature of his theme, and has given us a most complete picture of the science of dermatology of the present day. Between the covers of this book the student will find all that is of value in the matters of which it treats. We have nothing to criticise adversely. Our attitude is one of eager expectancy when we lay the book down. We feel that if what is to follow equals what has already appeared, the author will again have the distinguished honor of having produced the most complete treatise on dermatology in the world by any single writer.

The letter-press is of the best. The book is printed on fine paper, and the beauty of the anatomical illustrations can hardly be excelled. No claim is made for original work in the anatomy of the skin. The illustrations are taken from Sappey, Unna, Ranvier, Kölliker, and other acknowledged masters. No other book on dermatology is so fully illustrated with anatomical plates as is this one. One does not need to spend weary hours with his microscope in order to learn the anatomy of the skin, so clearly is the subject presented by the illustrations in this book.

As illustrative of the thoroughness of the book, we would instance the subject of etiology as here presented. It is studied under the headings of symptomatic dermatoses, idiopathic dermatoses, age, sex, climate, seasons, diathesis, temperament, race, complexion, predisposition, idiosyncrasy, heredity, constitutional diseases, disorders of kidneys and urine, gout and rheumatism, respiratory system, sexual system, nervous system, psychical states and shock, mental impressions upon the fetus, hysteria, food, medicine, pregnancy, dentition, vaccination, occupation, heat and cold, clothing, irritants, uncleanliness, scratching, traumatism, and contagion.

We cannot speak too highly of this first part of Duhring's book. We feel sure that the rest will not fall below the standard set. We cordially commend the book to all physicians, whether young or old.

A Treatise on the Medical and Surgical Diseases of Childhood.—By J. LEWIS SMITH, M.D., clinical professor of Diseases of Children, Bellevue Hospital Medical College, etc. Eighth edition, thoroughly revised and greatly enlarged, with 273 illustrations and 4 plates. New York and Phila.: Lea, Brother & Co., 1896.

The advances in our knowledge of the etiology, therapeutics, and pathology of the diseases of children have called for a thorough revision of this classical work. The author, in order to perfect the subject in every possible way, intrusted the surgical diseases of children to STEPHEN SMITH, and assigned certain of the topics to his son-in-law, the late Dr. FREDERICK M. WARNER, to whom the book is dedicated as a mournful memento of a medical man carried off in his prime at the very threshold of a most brilliant career.

The chapter dealing with intubation was specially prepared by Dr. JOSEPH P. O'DWYER, and Dr. A. R. ROBINSON contributed to the text and the illustration of the portion of the book dealing with the skin diseases of children. In other words, the distinguished author, with rare modesty, determined to secure assistance in the elucidation of those portions of his book wherein he felt others were more competent to speak with the weight of authority, giving us a treatise which in every respect can more

than hold its own against any other work treating of the same subject, be it elaborate composite system or more modest text-book. The result is that the practitioner will still, as he has for long in the past, look to SMITH'S diseases of children for that accurate portrayal of symptom, that lucid exposition of treatment which stand him in such good stead at the bedside of his little patients. For years the work under review has been the favorite, and under the present auspices we question not that it will remain such.

The arrangement of the present edition differs but little from that of others, except as regards the additional pages rendered requisite by progress in knowledge and the insertion of clinical data carefully observed by the author and his collaborators in the light of changes in method of treatment during the past few years. With regard to these, we note a commendable reserve in reference to methods which are still *sub judice*, and yet fair statement of both sides of a question.

A systematic analysis of this work being impossible in the BULLETIN, if, indeed, it be necessary, since the name of the author is a household one, we rest content with wishing it the long lease of life which its intrinsic merits and its assured vitality certify for it.

EDITOR'S NOTES

Dr. Z. T. Daniels, one of the oldest physicians of the Indian service, has been transferred from the Pine Ridge Agency, South Dakota, to Carlisle, Pa.

Dr. W. D. Hamaker, of Meadville, Pa., has been reappointed a member of the Pennsylvania State Board of Medical Examiners.

The Washington Medical and Surgical Club, of the District of Columbia, has elected the following officers: President, Dr. R. MUNSON; vice president, Dr. W. F. COREY; treasurer, Dr. L. B. SWORMSTEDT; librarian, Dr. T. L. MACDONALD; secretary, Dr. C. A. DAVIS.

A New York Hospital in Danger.—A half million dollar fire, which threatened destruction of the Trinity Hospital, raged for three hours, and totally destroyed the adjoining buildings. The vigilance of the attendants and general discipline of the corps averted what otherwise might have been a disaster.

The Laura Memorial Women's Medical College and Presbyterian Hospital, of Cincinnati, Ohio, was incorporated in the office of the Secretary of State on the 21st ult. The institution is to be designed for the education of women in medicine and surgery and to establish a hospital.

New York Ophthalmic Hospital Report.—The forty-fourth annual report of the New York Ophthalmic Hospital, which has just been issued, shows the total number of patients treated during the year to be 16,361, to whom were given 50,930 prescriptions. The average daily attendance for the year was 167. The total number of days' board furnished during the year was 24,574.

Dr. Hoyer, of Seattle, Wash., has been appointed to fill the position of superintendent and physician of the County Hospital, *vice* Whiting resigned. Dr.

Hoyer is a graduate of the University Medical College of New York City.

A New Professor for Tulane.—The faculty of the medical department of Tulane University, New Orleans, La., has announced the election of Dr. A. L. METZ to the Chair of Chemistry and Medical Jurisprudence, *pro tem.*, to fill the vacancy in that body caused by the death of the late Dr. JOSEPH JONES.

The Lackawanna Medical Association met at Scranton, Pa., on the 25th ult., and listened to a paper by Dr. GUNSTER on Phthisis. He advocated "good ventilation" in schools, mills, factories, hospitals, and all places where oxygen is rapidly consumed. The paper was ably discussed by Doctors RHEA, REEDY, and BATESON after Dr. GUNSTER had closed.

The Manhattan State Hospital.—At a recent meeting of the Board of Managers of the Manhattan State Hospital, the following gentlemen were appointed to the consulting staff: Drs. Austin Flint, C. J. Pardee, W. V. White, W. R. Gillette, A. McL. Hamilton, E. G. Janeway, J. D. Bryant, E. D. Fisher, W. H. Ross, W. H. Thomson, Frederick Peterson.

Woman's Medical College.—Dr. FREDERICK PETERSON, formerly associate editor of the BULLETIN, has been appointed clinical professor of mental diseases at the Woman's Medical College of this city. Dr. Peterson's long asylum experience at Buffalo and Poughkeepsie, together with subsequent extensive study of psychiatry in this country and in Europe, have amply qualified him for his professorial duties.

Women's Medical Club.—It may be interesting to the profession to learn that Chicago goes on record as having organized the first "Women's Medical Club." The club is in a flourishing condition, was incorporated last month, and has a membership of 30. The new society proposes to build a handsome city hospital in one of the crowded districts which shall be a monument to the women members of the medical profession.

The Onondaga Medical Society held its quarterly meeting in the Academy of Medicine, Syracuse, N. Y., on the 25th ult. Dr. Willard, of Fayetteville, submitted a paper on "Interstitial Nephritis"; Dr. Stephenson presented a paper on the "Relation of Medical and Physical Diseases," and Dr. F. W. Sears gave a report on the scarlet-fever epidemic in Syracuse, in which the authorities were scored for alleged negligence in carrying out the quarantine regulations.

The Baltimore Medical Association held a banquet in the rooms of the new faculty hall on Eutaw street, in commemoration of its thirtieth anniversary. Drs. C. H. JONES, CHARLES G. HILL, and G. LANE TANEYHILL made brief addresses. At the annual election of officers Dr. RANDOLPH WINSLOW was chosen president; Dr. HERBERT HARLAN and Dr. JOSEPH T. SMITH, vice-presidents; Dr. W. E. WIEGAND, corresponding secretary; Dr. EUGENE CRUTCHFIELD, reporting secretary; Dr. C. URBAN

SMITH, treasurer; Drs. H. H. BEIDLER, E. G. WALTERS, and JOHN NEFF, executive committee; Drs. WILBUR BRINTON, S. T. EARLE, and JOHN W. CHAMBERS, committee of honor.

Proposed Incorporation of the Optical Society.

—The following appeal has been issued by the Medical Society of the State of New York, to the medical profession:

"A bill has been introduced in the Assembly, incorporating the Optical Society of the State of New York, the passage of which would be a serious menace to the public at large and an infringement of the laws governing medical practice.

"This bill gives to the New York Optical Society, which is not composed of medical men, the exclusive right to issue certificates to opticians, charging for each the sum of \$25; certificates which it can revoke at its pleasure. It also has the power to license 'refracting opticians,' thus putting in the hands of incompetent people the right to fit glasses for various troubles of the eyes—privileges which should be only in the hands of competent physicians.

"A bill was hurried through the Legislature during the last session which conferred on chiropodists medical rights, the possession of which, in the hands of the ignorant, cannot fail to work harm to the community. It is our duty as physicians and guardians of the public health to keep a watch on these efforts to evade the laws governing medical practice, and to enter at once a vigorous protest.

"The members of the Legislature are, in nearly every instance, willing to be guided in these matters by the expressed desires of the medical profession; it is, therefore, requested that every physician throughout the State write to the Senator and Assemblyman representing his district, protesting against this bill, and requesting the representative to use his influence to defeat it.

"The bill is entitled 'An Act to Incorporate the Optical Society of the State of New York, etc.,' and is known as Assembly Bill No. 727, which number please use in writing to your representative.

"A. WALTER SUITER, M.D.,

"MAURICE J. LEWIS, M.D.,

"J. M. WINFIELD, M.D.,

"Committee on Legislation."

The Health Department's Diphtheria Antitoxin.

—A circular issued by the Health Department on March 7 has been sent to the medical profession of the city, stating in part as follows: "As the result of some investigations carried on in the bacteriological laboratory of the Health Department, which have greatly perfected the methods of production of diphtheria antitoxin, it has been possible to prepare antitoxic serum of much greater power than that which has previously been in use. The curative value of any preparation of antitoxic serum is, of course, due, not to the amount of serum, but to the amount of antitoxin which the serum contains; and investigation seems to show that the disagreeable symptoms sometimes occasioned by the use of diphtheria antitoxin are due, not to the antitoxin, but to the horses' blood serum, in which the antitoxin is present in solution. It naturally follows that more concentrated preparations, in the use of which only small doses are required (2 to 5 c.c.), will diminish materially the frequency with which the rashes and other symptoms follow the administration of the remedy." It is understood that Drs. WILLIAMS and PARK have perfected the modified method by which the department is able to manufacture the antitoxin

rapidly and in powerful form. The remedy is furnished free to hospitals and institutions, and at cost of manufacture to physicians.

Army Items.—The following named officers of the Medical Department were relieved from duty in Washington, to take effect upon the completion of the present course of instruction at the Army Medical School, and are assigned to duty at the following named stations:

1st Lieut. Thomas J. Kirkpatrick, assistant surgeon, Fort Columbus, N. Y., for temporary duty.

1st Lieut. John H. Stone, assistant surgeon, Fort Leavenworth, Kan.

1st Lieut. Irving W. Rand, assistant surgeon, Fort Apache, Ariz.

1st Lieut. Powell C. Fauntleroy, assistant surgeon, Fort Riley, Kan.

1st Lieut. James S. Wilson, assistant surgeon, Madison Barracks, New York, for temporary duty.

Leave of absence for one month, to take effect upon his relief from duty at Jefferson Barracks, Missouri, is granted Major Robert H. White, surgeon.

The leave of absence on surgeon's certificate of disability granted Captain Benjamin Munday, assistant surgeon, is extended two months on account of sickness.

Obituary.—Dr. TOWNSHEND was born in Prince George's County, Md., December 13, 1836. In 1856 he went to Illinois and later to Colorado. At the outbreak of the war he entered the service as a private soldier, and meritorious service found him a major after the battle of Atlanta. At the close of the war Major TOWNSHEND completed his education at Schurteff College, Illinois, and he was graduated in medicine at the National Medical College, Washington, D. C., in 1869. He was appointed health officer of the district July 9, 1878, and practiced his profession until his recent illness, which terminated in his death.

Dr. JOSEPH RODGERS, for 50 years a practicing physician of Utica, N. Y., died at that place on the 24th of last month.

Dr. JOSEPH E. SALTER died at the Bayonne Hospital, Bayonne, N. J., one the 29th ult. He was visiting surgeon to the Bayonne Hospital.

Dr. W. P. PALMER, one of the best known of the Virginia antiquarians and an accomplished writer, died March 2d of paralysis.

Dr. JAMES ARMITAGE died at his residence in Baltimore, Md., on the 28th ult.

Dr. WILLIAM H. STEWART, a graduate of the medical department of the University of Pennsylvania, died at his home in Philadelphia on the 3d inst. He was a member of the County Medical Society.

Dr. JOHN S. DANIELS, one of the best and most favorably known surgeons of New Hampshire, died in Rochester, N. H., on the 6th inst. He was born in Barrington, N. Y., and educated at the Long Island Medical College.

Dr. O. D. CLARKE, of Russellville, Pa., who was graduated from Jefferson Medical College last spring, died at his home in Westchester on the 27th ult.

Dr. BOYD C. SPENCER died at Hamot Hospital on March 1. He was graduated from Jefferson Medical College in 1889.

Dr. WILSON SNYDER died at Reading, Pa., on March 1. He was born in Mohrsville, Pa., and was graduated from the Baltimore Medical College.

Dr. PHILIP R. PAEM, of Allentown, Pa., died at his home on the 6th inst. He was graduated from Jefferson Medical College in 1846, and served in the medical department of the army during the war.

Dr. GEO. B. COGSWELL died at his home in North Easton on the 6th inst. Dr. COGSWELL was born in Bradford, Mass., in 1834, was educated at Wilmington Academy and Dartmouth College, and was graduated from Harvard Medical College in 1857. He served in the civil war. His grandfather was the first surgeon-general ever appointed in the United States Army.

Dr. IRVING W. LYON, died at his home in Hartford on the 2d inst. Dr. LYON was born in Bedford, Westchester County, N. Y., October 19, 1840, and received his medical education at the Vermont Medical College. He was graduated from the College of Physicians and Surgeons of New York in 1863. After graduation he was on the staff of the Bellevue Hospital for two years. He served as surgeon in the United States Army during the war. Dr. LYON has been a practitioner for 30 years. He was a contributor to numerous medical journals, besides publishing a number of monographs on medical subjects. He was the president of the Hartford County Medical Society at the time of his death.

Tennessee Medical Society.—We present below the preliminary program of the sixty-third annual session of the Medical Society of the State of Tennessee, to be held at Chattanooga, Tenn., April 14, 15, and 16, 1896:

1. "Fractures at the Upper Extremity of the Radius, with Cases," by Dr. B. B. Cates, Knoxville.
To open discussion—Drs. G. Baxter, Chattanooga, and W. B. Rogers, Memphis.
2. "Diseases of the Accessory Cavities of the Nose," by Dr. G. M. Peavler, Bristol.
To open discussion—Drs. Frank Trester Smith, Chattanooga, and G. H. Price, Nashville.
3. "Some Observations on the Therapeutic Actions of Ergot," by Dr. W. C. Bilbro, Murfreesboro.
To open discussion—Drs. M. L. Bradley, Saddle Creek, and S. S. Duggan, Unionville.
4. "Posterior Urethritis," by Dr. J. W. Handley, Nashville.
To open discussion—Drs. W. F. Glenn, Nashville, and G. W. Seay, Nashville.
5. "Retroflexion of the Uterus, with Report of Cases," by Dr. G. B. Gillespie, Covington.
To open discussion—Drs. R. Douglas, Nashville, and Hazel Padgett, Columbia.
6. "Immediate Amputations," by Dr. T. J. Happel, Trenton.
To open discussion—Drs. Duncan Eve, Nashville, and C. A. Abernathy, Pulaski.
7. "Croup," by Dr. G. W. Moody, Shelbyville.
To open discussion—Drs. J. A. Witherspoon, Nashville, and J. W. Brandeau, Clarksville.
8. "A Review of the Past and Present Pathology and Treatment of Uterine Displacements," by Dr. J. S. Nowlin, Shelbyville.
To open discussion—Drs. W. D. Haggard, Nashville, and W. K. Sheddan, Williamsport.
9. "Report of a Case of Neurotic Bladder Trouble, and Subsequent Pyelonephritis, Relieved by Nephrotomy," by Dr. J. B. F. Dice, Morristown.
To open discussion—Drs. J. W. Handley, Nashville, and W. K. Vance, Bristol.
10. "Gastric Dyspepsia," by Dr. K. S. Howlett, Bigbyville.
To open discussion—Drs. J. S. Cain, Nashville, and J. A. Crook, Jackson.
11. "The Use of the Bicycle," by Dr. Hazel Padgett, Columbia.
To open discussion—Drs. S. W. Sanford, Union City, and G. D. Hayes, Shelbyville.
12. "Cancer of the Breast," by Dr. S. S. Crockett, Nashville.
To open discussion—Drs. J. R. Buist, Nashville, and G. W. Drake, Chattanooga.

13. "Professional Fads and Faddists," by Dr. W. K. Sheddan, Williamsport.
To open discussion—Drs. N. T. Dulaney, Bristol, and J. B. Cowan, Tullahoma.
 14. "Constipation," by Dr. S. T. Hardison, Lewisburg.
To open discussion—Drs. J. S. Nowlin, Shelbyville, and K. S. Howlett, Bigbyville.
 15. "Fissura in Ano," by Dr. A. B. Cooke, Nashville.
To open discussion—Drs. J. L. Watkins, Nashville, and C. Holtzclaw, Chattanooga.
 16. "The Germ Theory of Disease," by Dr. C. M. Sebastian, Martin.
To open discussion—Drs. H. Berlin, Chattanooga, and Larkin Smith, Nashville.
 17. "Sprained Ankles," by Dr. J. L. Crook, Jackson.
To open discussion—Drs. S. S. Briggs, Nashville, and C. L. Lewis, Nashville.
 18. "Mastoid Diseases," by Dr. N. C. Steele, Chattanooga.
To open discussion—Drs. L. B. Graddy, Nashville, and G. M. Peavler, Bristol.
 19. "Medio-bilateral Lithotomy," by Dr. C. S. Briggs, Nashville.
To open discussion—Drs. Paul F. Eve, Nashville, and B. B. Cates, Knoxville.
 20. "Repair of Round Ligament of the Uterus vs. Production of Artificial Ones," by Dr. M. C. McGannon, Nashville.
To open discussion—Drs. T. J. Crofford, Memphis, and G. B. Gillespie, Covington.
 21. "The Rational Treatment of Typhoid Fever," by Dr. J. A. Crook, Jackson.
To open discussion—Drs. A. M. Trawick, Nashville, and T. R. Moss, Dyersburg.
 22. "Surgical Operations in the Aged," by Dr. C. A. Abernathy, Pulaski.
To open discussion—Drs. J. B. Murfree, Murfreesboro, and R. J. McFall, Cumberland City.
 23. "Anomalies of the Umbilical Cord," by Dr. W. S. Scott, Dickson.
To open discussion—Drs. J. Bunyan Stephens, Nashville, and H. J. Warmuth, Smyrna.
 24. "Caesarean Section," by Dr. R. Douglas, Nashville.
To open discussion—Drs. W. G. Bogart, Chattanooga, and C. E. Riscine, Knoxville.
 25. "The Art and Mystery of Medicine," by Dr. B. D. Bosworth, Knoxville.
To open discussion—Drs. G. W. Moody, Shelbyville, and C. M. Sebastian, Martin.
 26. "Surgery of the Pancreas," by Dr. Paul F. Eve, Nashville.
To open discussion—Drs. C. S. Briggs, Nashville, and J. W. Hill, Knoxville.
 27. "Hypertrophy of the Prostate," by Dr. W. F. Glenn, Nashville.
To open discussion—Drs. J. B. F. Dice, Morristown, and J. L. Crook, Jackson.
 28. "The Importance of Complete Post-partum Uterine Contractions, for the Safety of the Mother," by Dr. J. R. Buist, Nashville.
To open discussion—Drs. M. C. McGannon, Nashville, and C. W. Womack, Chapel Hill.
 29. "Treatment of Injuries of the Brain," by Dr. D. Y. Winston, Clarksville.
To open discussion—Drs. L. P. Barbour, Tullahoma, and T. C. Murrel, Winchester.
 30. "Report of a Case of Gall Stones," by Dr. T. R. Moss, Dyersburg.
To open discussion—Drs. A. J. Swaney, Gallatin, and I. A. McSwain, Paris.
 31. "Pernicious Malarial Fever," by Dr. C. W. Womack, Chapel Hill.
To open discussion—Drs. W. C. Bilbro, Murfreesboro, and W. S. Scott, Dickson.
 32. "Treatment of Hemorrhoids," by Dr. H. R. Coston, Fayetteville.
To open discussion—Drs. A. B. Cooke, Nashville, and C. Brower, Nashville.
 33. "Vaginal Hysterectomy," by Dr. T. J. Crofford, Memphis.
To open discussion—Drs. R. Douglas, Nashville, and M. C. McGannon, Nashville.
 34. "Sciatica," by Dr. R. J. McFall, Cumberland City.
To open discussion—Drs. W. A. H. Coop, Lawrenceburg, and W. A. Atchison, Nashville.
 35. "The History of a Lawsuit," by Dr. C. Holtzclaw, Chattanooga.
To open discussion—Drs. D. E. Nelson, Chattanooga, and E. L. Deaderick, Knoxville.
- Presidential Address.—Dr. G. C. Savage: "Medical Progress; Its Helps and Hindrances."

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MEDICINE, A SCIENCE OR A "PATHY"?

IN the President's address before the Medical Society of the State of New York, at its recent meeting at Albany, the hope was expressed that the time is not far distant when the American Medical Association will receive delegates of this State society with old-time cordiality; and the statement was made that the only obstruction at present is the prejudices of a comparatively small number of persons. A resolution was also passed giving the secretary the power to do whatever seemed wise toward bringing about this state of affairs. Students of medical history have been interested in the ethical battle in this country, because it emphasizes the bias that controls great medical associations.

It is the biased action of a few that has given homeopathy its apparent success; it is the biased action of the representatives of the same society which has ostracized the important society of the State of New York, because they decided some fifteen years ago to abrogate the obsolete and impracticable code of ethics of the American Medical Association. It is a well-known fact that nearly all of the important members of the American Medical Association, especially those in large cities, wholly disregard the rules of that association in regard to consultation with men of other schools.

The whole controversy suggests the question of whether medicine is really a science, or whether it is simply a "pathy"—a trades association controlled by fixed laws of procedure and of action, to which its members must subscribe, and the infringement of which leads to expulsion from the association. At the time when Hahnemannism was first suggested, and the few ardent experimenters undertook to sustain the dictum of *similia similibus curantur*, the

narrow action of the regular society forced them out and compelled them to practice under an independent organization. Had ordinary scientific rules been applied, had the utmost liberty been allowed for the study and application of this method of practice, had these men received the encouragement that they should have received to accurately record the results of their practice, there would have been no distinct sect at the present time, and undoubtedly both regular medicine and homeopathy would have profited by the result. It is useless at the present time to make the statement that there is nothing in homeopathy as practiced to-day. Years of experience have led this school far from the original dictum of Hahnemann. There are few, if any, who are still practicing according to the old methods.

If medicine is a science, the portals should be thrown wide open to every investigator. Let him experiment in whatever way he may, urge simply that he give the world the benefit of his results, honestly compiled and honestly told. Break down the barriers that exist between medical sects in favor of medical science. Let us have less politics and more humanity in dealing with these subjects.

Under no circumstances should the State Society of New York consider any modification of its present standing. It is now independent of all codes, its doors are wide open to the reception of any man who practices honest medicine, and who has the requisite requirements to practice the art. The sooner the other medical associations assume this same position, the sooner shall we be able to go forward as a scientific body, seeking only definite results in the cure of disease, its prevention when possible, and its amelioration when incurable. What difference does it make to the physician, if he is

really a scientific man, how these results are attained so long as they follow a definite course of treatment which is founded on sound principles? If the American Medical Association chooses to admit the State of New York with its present condition of "no code," undoubtedly the State Society would resume its affiliation with the parent body, but under no consideration can this society take a step backward. It is in the van of medical progress; to reassert its allegiance to the present code of ethics of the American Medical Association would be to retreat from its advanced position, and we feel confident that no such action will be taken by the members of the New York State Society.

It is unfortunate that in this State we have a minority who still cling to the views of the old *régime*, and in consequence favor a division of the sects in medicine; but as the older men who have sustained these views have gradually dropped out of the battle as their active influences have disappeared, the State Association has lost much of its aggressiveness, and has gradually come to consider the question with less rancor. Such, however, was not the case a few years ago. This was evidenced last year, when they appointed a committee to confer with the State Medical Society to bring about, if possible, a coalition between the two. The answer of the State Society at that time was the abrogation of the whole code; it was practically a statement that it was on those conditions, and those only, that coalition was possible. Let the Association of the State of New York take this same stand, and the two bodies can reunite, giving the State of New York a single representative State society.

The seed sown by the New York men in taking this action 15 years ago has been bearing fruit rapidly within the past few years. The American Medical Association, being made up largely of representatives from the districts in which it meets, is confined to a comparatively small area for its annual meetings. It dare not enter certain of the Western States, because it is well known that if the majority of the representation at the annual meeting came from that neighborhood, the old code of ethics would die a natural death. But the time will come, and in our opinion it is not far distant, when the association will find that there are enough permanent members who have been imbued with the advantages of the New York idea to move for a change from the present condition of affairs in the American Medical Association, and to invite the State of New York to enter without requiring subscription to the association's present code.

ORIGINAL CONTRIBUTIONS

ON PERIARTHRITIS OF THE SHOULDER*

By R. W. AMIDON, M.D.

Professor of Therapeutics in the Woman's Medical College of the New York Infirmary

AN adult, perhaps lithemic or rheumatic, wakes, late in the night or early in the morning, with a dull, sickening pain in the deltoid region of one or the other shoulder, which may also be rather sensitive to pressure. He finds that motion of the arm, especially abduction and external rotation, gives rise to such acute pain in the deltoid region that performing the toilette and dressing is almost impossible. If he be determined and not oversensitive, and move the arm in spite of the pain, he will feel, and sometimes hear, crepitation in the painful region.

A physician, being consulted, will find no general bodily derangement, nor any local heat, redness, or swelling. There will be found tenderness on deep pressure, most marked over the region of the greater tuberosity of the humerus. Active movements of the arm are very restricted, especially abduction, which, if persisted in, is accomplished chiefly by rotation of the scapula. When the examiner stands behind the patient, with one hand on the shoulder, and, grasping the elbow with the other, attempts various passive movements of the arm, he finds the mobility of the arm much impaired, chiefly in the direction of abduction. Seeking a cause for this restriction of movement, he finds it chiefly due to the resistance of antagonistic muscles, and movements are of the shoulder as a whole rather than of the humerus on the scapula. During movements crepitation is felt by the hand on the deltoid, and sometimes heard. If the scapula be held by an assistant, and vigorous, extensive, passive motions be made, seeming adhesions give way, with pain and sharp, snapping sounds. In mild cases, like the above, under proper treatment all symptoms, subjective and objective, disappear in a few days, and the arm is as useful and mobile as ever.

In severer cases, or even in mild cases which are coddled, recovery is not prompt and is often incomplete, as shown by restricted motion, more or less pain, and some wasting of the muscles of the shoulders, particularly the deltoid.

Etiology.—The etiology of these cases is probably an exposure of the part to cold or a draught—the victim being generally of a lithemic or rheumatic habit. Much the same state of affairs is present in those similar cases where prolonged immobility of the limb from paralysis (central or peripheral) or from long retention of the member in splints and slings, in cases of fracture of arm or forearm, dislocations of elbow and wrist, or because of some operation on arm, forearm, or hand. Contusions of the shoulder and wrenching injuries of the same

cause the trouble in some cases. Fractures in or near the joint and dislocations of the humerus and scapula may cause some cases, as claimed; but symptomatically they are rather different, and would, I think, be found pathologically even more so.

Belonging to this latter category was one of DUPLAY's cases, the only one in which an autopsy has shown anything, and for that reason I quote it.¹ A man of 53 fell on the left shoulder. Eight days later a luxation was discovered and easily reduced without an anesthetic. Three months after the injury the patient re-entered the hospital for a periarthritis, which was treated by passive movements followed by poultices. The patient was discharged, improved, in a month. A month later the man came back, having been on a prolonged spree. He was in a bad general condition, nearly comatose, with high fever and a generalized bronchitis.

On the third day after admission the patient died suddenly. An autopsy was held and both shoulders were critically examined and compared. The left deltoid was little atrophied, but its tissue was much paler than that of the right. In place of the lax and lamellar cellular tissue underneath the deltoid on the right side, on the left side was found a fibrous tissue, extremely resistant, forming bridles, and irregularly disposed sheets, which in many places connected the deltoid and the upper extremity of the humerus. There was no trace of the vast serous bursa so manifest on the right side. The tendons of the supra and infra spinatus, the teres minor and subscapularis, had lost their brilliant, pearly aspect, their surface being rough and yellow, as was also the inferior surface of the acromion.

It was evident that the subacromial bursa had been the seat of an inflammation, followed by a thickening of its walls. There was no trace of the adhesions broken some weeks before, except some fibrous bands under the deltoid, whose points of attachment had been torn. The fibrous capsule of the articulation was slightly thickened below, and in the capsule the cellular tissue which surrounds it was notably thickened, transformed into fibrous tissue and traversed for some centimeters by the ulnar and internal cutaneous nerves, closely glued to each other, and the seat of redness and marked injection. The articular surfaces were normal.

Of course, this was an aggravated case, depending as it did upon direct traumatism and probably laceration of the capsule of the joint. It is interesting to note that even here "the articular surfaces were normal."

Almost all writers on the subject have stated it as their opinion that the lesion in periarthritis is an inflammation of the bursa, underlying the deltoid muscle. Since the above-mentioned case is the only one in which a shoulder the seat of periarthritis has been examined, it is on theoretical grounds that authors locate the lesion in the subdeltoid bursa. DUPLAY's case should not be taken as a cri-

terion, because of the traumatic element wanting in idiopathic cases. A fall on the shoulder sufficiently severe to dislocate the humerus might well have ruptured the subdeltoid bursa and given rise to the inflammatory condition found in DUPLAY's case. My opinion as to the pathology of idiopathic periarthritis is that the trouble starts as an acute circumflex neuritis, and in mild or properly treated cases ends as such. In severe and improperly treated or neglected cases the neuritis becomes chronic and destructive, and then we may have a subdeltoid bursitis, with connective tissue proliferation, with the formation of bridles and adhesions, and also deltoid paralysis and atrophy. My reasons for thinking the primary lesion a neuritis are principally the strictly neural distribution of the pain and tenderness, the suddenness of onset of symptoms, and the absence of swelling, which should be present in an acute bursitis. The sudden subsidence of symptoms under appropriate treatment I should also consider an argument against bursitis. If we take into consideration the frequent cases of so-called periarthritis having their inception in traumatism, I think my claim of an initial circumflex neuritis will still hold good; for there are few nerves in the body anatomically situated so as to be as readily injured by direct or indirect violence or by dislocation, as the circumflex nerve, and traumatism is by far the most common cause of neuritis.

Diagnosis.—The symptoms of cases vary according to severity and cause. In idiopathic cases pain in the deltoid region is the first symptom. It is generally dull and sickening, though it may be sharp and severe. It may be almost unnoticed until brought out by abduction of the arm. It is apt to come on late at night or early in the morning, and may wake the patient from a sound sleep. It is aggravated by motion of the part, and little, if any, relieved by pressure. Severe pain lasts but a few hours, but the dull ache which supervenes is of indefinite duration and becomes aggravated at night.

The pain is generally diffuse, but sometimes has points of greater intensity, of which the insertion of the deltoid is the most common. The pain is greatly intensified by active motions, especially where abduction or external rotation is comprised in the movement. It is especially when the patient tries to wash the face, arrange the hair, or put a garment on over the head that he recognizes his crippled state. In some cases the slightest movement produces such severe pain that the arm is held closely adducted to the side, with the forearm flexed across the chest, and perhaps supported by the opposite hand, the mere weight of the member producing pain in the shoulder. Restriction of motion is due in early cases, not to adhesions, but to reflex spasm of antagonistic muscles—the pectoralis major, latissimus dorsi, teres major, and triceps. The proof of this is that an arm almost immobile during consciousness may be found perfectly mobile in all directions during general anesthesia. Sometimes early, but always later, in protracted cases a crepi-

¹ "De la Périarthrite scapulo-humérale et des raideurs de l'épaule qui en sont la conséquence." *Arch. gen. de Méd.*, Paris, 1872, II, pp. 513-542.

tus can be felt, and sometimes heard on motion. In neglected or bad cases false ankylosis (from extra-articular fibrinous bands) develops, and then mobility is found to be restricted, even under ether. The deltoid becomes weak and flabby, and perhaps slightly atrophied.

In hemiplegic cases, or where for any reason the shoulder has been long immobilized, the condition is seldom discovered until active or passive motion is attempted, and then the scapulo-humeral articulation is found to be more or less immobile and forced movement painful. The condition here is evidently the same as in bad or neglected idiopathic cases. An anesthetic discloses real rigidity, only overcome by breaking extra-articular adhesions. Deltoid atrophy here is slight, but generally noticeable.

When due to direct traumatism (fall or blow on deltoid region), or following a dislocation of the humerus, there is generally a history of pain about the shoulder from the start, made worse when motion of the arm is commenced. By this time the deltoid has become considerably wasted and very weak, often allowing the limb to sag away by its own weight, so that two fingers can be placed between the acromion and the head of the humerus. In some of these cases there is degeneration reaction in the deltoid. Here again is always a false ankylosis, sometimes very resilient.

Prognosis.—The course and prognosis of the disease vary much. In simple and mild cases complete recovery soon supervenes (even without outside treatment) if active motion be persisted in. Properly treated, all simple cases recover perfectly in a few days or weeks.

I am convinced that even simple cases may become chronic, and result in permanent disability if they are coddled or long neglected. Bad, especially traumatic, cases are very likely to run a very chronic course, and, if improperly treated, or untreated, never recover. The condition to which bad or untreated cases tend is a painful ankylosis of the shoulder with very restricted movements and usefulness of the limb, and more or less complete atrophy and paralysis of the deltoid muscle with degeneration reaction.

Periarthritis of the shoulder, whether it be simple or traumatic, acute or chronic, can hardly be confounded with anything else. Articular disease of the shoulder is so extremely rare as to be hardly worth considering. If present, however, it would manifest itself by swelling, and symptoms very different from those of periarthritis.

Treatment.—My treatment of common cases has been simple, and generally effective. I lightly cauterize the deltoid region, and repeat the application in a day or two if necessary. I institute passive movements of the joint at once, and repeat the manipulation daily. After the second or third day I insist on use of the arm, and calisthenics involving abduction and circumduction of the arm. Dry frictions and massage of the shoulder help. I have never seen the pain so severe as to require an ano-

dyne, but do not pretend one may not sometimes be needed. Mustard or hot cloths, as counter-irritants, may suffice in mild cases. Local blood-letting (leeches or wet cups) I have never resorted to, but doubt not their efficacy. Some advise an application of ice in the early stages. I have never used it, and confess to some prejudice against it.

Emollient applications (poultices, hot stupes, etc.) are advised by some. I have never employed poultices, except to soothe the irritation following violent passive movements. Although indicated, I have used anti-rheumatic remedies—alkalies, salicylic acid, and colchicum—so little that I cannot vouch for their efficacy.

In bad cases, electrical treatment of the weak and wasting deltoid is indicated, employing whichever current produces contraction with the weakest current.

Hot and cold douches to the shoulder are recommended by some.

In the treatment of bad and chronic cases, because of the firmer adhesions to be overcome, the patient has to be anesthetized, perhaps, more than once. It is seldom I have had to resort to anesthesia, finding in most cases that repeated passive movements ultimately restore mobility. So far as my personal experience goes, and my reading tells me, no permanent harm to joint or bones has ever followed passive motion, however energetic.

Conclusions.—In conclusion it is fitting to state that the disease which I have briefly discussed is a very every-day affair, and my only excuse for making it the subject of a paper at all is that little has been written on the subject, both medical journals and text-books being almost silent about it. The frequency of the ailment, its painful nature, and the deplorable results which may follow neglect, convince me that the study of its nature, course, and treatment should occupy more prominence than heretofore. To the possible criticism that the name of the affection is misleading, let me reply that the name as it stands was given to the affection by JARJAVAY in 1867, and has been likewise employed by subsequent writers. It is certainly preferable to "rheumatism of the shoulder," or "muscular rheumatism of the shoulder," which the condition is often termed; for the name "periarthritis," however inappropriate it may be, at least has the recommendation of representing the pathological condition as extra-articular.

As the bibliography is brief, I append it:

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New York; 19 West Twenty-first street.

THE ALUMINUM-CLAMP ARTERY COMPRESSOR

A New Method for the Arrest of Hemorrhage, to Replace the Ligature

By EVAN O'NEILL KANE, M.D.

Physician to the Kane Summit Hospital, Kane, Pa.

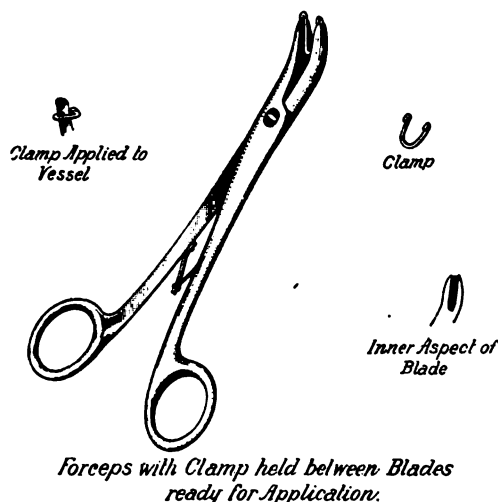
TO operate bloodlessly and with rapidity, and to close the wound as quickly as possible, are cardinal points in the prevention of shock, and upon their attainment or failure may depend the ultimate success of the operation. The prevailing tedious methods of ligating vessels militate against us. The process is too familiar to require description. Equally familiar to the operator are the occasions when his silk has snapped, tearing off the end of the vessel, or cut his fingers by slipping through them. How often his catgut has twisted into knots, or "kinks," slipped off or swelled, or become untied, and how prone both silk and catgut are to irritate and become a nidus for germs! Often, too, as we all know, there is more time spent in the ligation of vessels in a vascular region than in all the other steps of the operation.

Recognizing, therefore, the need of a method of permanent arterial compression, more rapid, effective, and aseptic than the ordinary one by ligature, I have devised an aluminum clamp, which I have found to fulfill every requirement. This clamp consists of a small piece of curved aluminum wire, each extremity of which is thickened and rounded, to render it unirritating, by being bent back upon itself, so that it presents much the appearance of a miniature horseshoe with heel-corks. This curved wire clamp, when about to be applied, is placed between the jaws of a specially constructed pressure-forceps, with a spring on the handles, slipping being prevented because the wire fits into a groove on the inner aspect of each blade.

The open or "heel-cork" extremity of the wire-clamp presents at the beak of the blades, the turned-over ends of the wire "heel-cork," overlapping sufficiently to prevent the wire from sliding back within the blades when pressed into the tissues about a vessel. The accompanying illustration will best explain both the shape of the clamps and the construction of the forceps. Half a dozen or more such forceps, kept "threaded" by an assistant and laid within easy reach of the operator, would facilitate rapidity of application.

The method is easily comprehended. Grasping the end of the severed vessel with a tenaculum or hemostatic forceps in the usual manner, only with the left instead of the right hand (should I be operating without an assistant), I make slight traction upon it, as when about to ligate in the usual way.

Then, holding in my right hand the clamp-retaining forceps, I slide the clamp over (or rather around) the vessel. Having the clamp now in position, I compress it firmly about the vessel by simply closing the jaws of the forceps. All this is but the work of an instant, yet the vessel is thus tightly and permanently compressed, for the aluminum clamp is unyielding, and will retain its hold independently when applied to the largest vessel. Like the ligature, the clamp cuts the inner coat of the vessel, as well as closes the severed extremity; but unlike the ligature, it can be removed in a moment without farther injury to the tissues by grasping the closed end in a dressing forceps and making traction in the line of its application. Thus, at the completion of an operation, should a vessel be deemed so small as not to require permanent ligation, it having become closed, the clamp can be slipped off as easily as one would remove a hemostatic forceps.



The following advantages possessed by my clamp over our usual tedious procedure by ligature will be keenly appreciated by those surgeons who, like myself, have much emergency and accident surgery:

- (1) It is applied with great rapidity.
- (2) It never slips from the end of the vessel, either during or after its application.
- (3) Once applied, it will remain in position indefinitely, its inherent, non-corrosive property and its lightness reducing its power of irritating the tissues to a minimum, while it cannot become a nidus for germs.
- (4) The operator does not require the aid of an assistant to hold and make traction upon the vessel as he does in ligaturing. His own left hand plays the assistant's part, while he requires but one hand, his right, to apply the clamp.
- (5) The clamp can be applied to vessels in the deepest recesses of a narrow wound, where there is no room to introduce, tie, and make traction upon a thread.
- (6) It is easily sterilized by heat or antiseptic solutions.
- (7) Last, but not least, by its means we do away with the necessity of a multitude of hemostatic forceps hanging in our way while operating; for so little more time is expended in clamping, as we go

along, than in applying the hemostats, that it will generally be found most convenient to clamp.

Then, when the operation is over, everything is completed, and we have only to close the wound, instead of losing much valuable time in taking up each vessel and ligating or twisting it.

I regret being unable to furnish a large list of cases extending over a long period of time, from which to prove the efficacy of my method. At present I can only say that I have used it during the last five months in a number of cases, among which I can enumerate amputations, laparotomies, and other capital operations, in every one of which it has acted admirably, remaining encysted without causing any apparent irritation.

THREE CASES OF INTESTINAL OBSTRUCTION DUE TO OCCUPATION

By HENRY LYLE WINTER, M.D.

Clinical Assistant, Department of Nervous Diseases in the Medical Department of the University of the City of New York

IN presenting the following cases, I desire to call attention more particularly to the fact that the patients were all men of similar occupation—cork-cutters. It will be seen that the men had been engaged in their occupation for varying lengths of time, from four months to two years, and that the severity of the symptoms was in direct proportion to the length of time of employment.

Cases.—**CASE I.**—HENRY M., American, aged 27, cork-cutter, at which trade he had been engaged 14 months, had complained of pains over the lower portion of the abdomen for several days.

On May 10, 1895, when I first saw him, his temperature was 103°, pulse full and rapid, vomiting constant; vomited matter consisting mainly of mucus, with a small quantity of bile. Examination of the abdomen showed intense pain and tenderness over the entire lower portion. Pain was increased on pressure to such an extent that a thorough examination was impossible.

The patient giving a history of having had no stool for three days, a diagnosis of probable appendicitis was made, cold applications were ordered, and morphia was given hypodermatically. Under the constantly applied cold, the abdominal tenderness had disappeared by evening sufficiently to permit of a more thorough examination.

Deep pressure revealed a tumor in the left inguinal region, extending down into the pelvis. This pressure elicited considerable pain, while on the right side pressure caused comparatively none. The diagnosis was, therefore, changed to "obstruction," and the seat of the trouble located in the sigmoid flexure. A No. 8 Wales rectal bougie was easily passed into the flexure, and the location of the obstruction made certain. On the point of the bougie, when withdrawn, was a hard lump of fecal matter. The bougie was reinserted, and through it two ounces of ox-gall and glycerin were deposited in the flexure. When the injected matter was passed from the bowels, with it were small particles of fecal matter

On the following day the injection was repeated three times, and each time the mixture was returned from the bowel a considerable quantity of hard feces came with it.

That evening the patient had a natural movement of the bowels, and the last of the accumulated feces was removed, together with all the attending symptoms except a slight tenderness over the flexure, which persisted for two or three days.

Recovery was uneventful. No return of the trouble has been noted, though patient still continues at the same work. A mild laxative has been given daily since recovery.

CASE II.—CHARLES C., Norwegian, aged 23, cork-cutter; length of time engaged in occupation, two years.

First saw patient on December 15, 1895. Condition similar to the above-described patient. Vomiting severe and constant; vomited matter consisting almost wholly of bile. Temperature, 104½°; pulse small and rapid. Pain severe over lower abdomen, and increased on pressure.

Palpation revealed, though indistinctly, a tumor in the left inguinal region. A Wales bougie was, with considerable difficulty, passed into the flexure, when the obstruction could be felt.

The injections of ox-gall and glycerin were given as in the preceding case; but three days passed, nine injections being given, before the impacted feces could be broken up.

After the obstruction had been removed, much tenderness still remaining, the flexure was washed out daily with a 10-per-cent. aqueous solution of fluid hydrastis. This procedure was continued one week, when the patient passed from observation.

CASE III.—JOHN Y., Norwegian, aged 26, cork-cutter, at which business he had been engaged four months, was seized with pain and vomiting, January 30, 1896.

Saw patient on February 3. Vomiting still continued, but only on taking food or drink into the stomach. Temperature 100°, pulse 110 and regular. Pain, as in the two foregoing cases, over lower portion of the abdomen, and especially severe in left inguinal region.

No tumor could be made out, but owing to former experience a bougie was passed into the flexure, when a resisting mass could be only uncertainly felt.

Ox-gall and glycerin were deposited in the flexure, and after six hours the operation was repeated. The second injection resulted in the removal of hard masses of fecal matter, and on the next morning patient had a normal movement of the bowels. Patient said that he felt perfectly well, and passed from observation.

Etiology.—As stated above, the interest in these cases lies in their etiology.

The cases occurred in one house (a men's boarding-house), and the idea which first presented itself was that the condition was due to diet. An investigation of the food used proved, however, that such could not well be the cause.

In pursuing their occupation cork-cutters assume a bent-over position of the body; and while I am uncertain whether or not the position assumed would constrict the gut sufficiently to cause the obstruction, it seems very probable.

Each case gave a history of chronic constipation, dating to within a few weeks of the time of engaging in that occupation. The mere fact of their occupation being of a sedentary nature would fail to account for the condition, as the patients were young, healthy men, accustomed out of working-hours to considerable physical exercise.

Careful inquiry failing to elicit any other sufficient cause, and believing the occurrence of the cases to be more than a coincidence, I feel justified in reporting them as due to occupation.

Finally, it would seem that a person engaging in any employment where a similar position is assumed is liable to an attack of intestinal obstruction, and that in such an event a careful and thorough examination into the condition of the sigmoid flexure is indicated.

Brooklyn; 129 Milton street.

THERAPEUTIC EMPLOYMENT OF TANNALBIN AS AN INTESTINAL ASTRINGENT

By Dr. VON ENGEL

Senior Physician to the Moravian Hospital at Brunn, Germany

IN the treatment of the various affections of the intestine we are very frequently called upon to make use of astringent remedies. It is unquestionable that in many cases, especially of chronic catarrh, a direct therapeutic action can be exerted upon the mucous membrane of the intestine by the use of tannin. Even though we cannot assure a cure by the use of astringent substances—e.g., in tuberculous processes in the intestine—we can very frequently arrest the diarrhea. We must admit that the number of intestinal astringents now in use, as well as their limits of employment, is quite restricted. They all belong in the two great groups of the metal salts and the vegetable tannic acids. In the first group the most important are the salts of silver, lead, and bismuth. But all three possess certain disadvantages: the caustic action of nitrate of silver, which often contra-indicates its use; the toxic effects of acetate of lead, manifested even on repetition of small doses; while sub-nitrate of bismuth, an otherwise excellent remedy, is often badly borne by many persons, in whom it gives rise to nausea, vomiting, and disgust.

Tannin would more fully meet all the requirements of a good intestinal astringent did it not possess the disadvantage of uniting with albuminous substances, and when introduced into the stomach in a soluble form, at once exert an astringent action upon this organ.

Dr. GOTTLIEB, of the Pharmacological Institute of Prof. V. SCHROEDER at Heidelberg, has prepared a tannin albuminate, named "tannalbin," in which these objectionable features are overcome. He describes his experiments and his product as follows:

"A solution of the problem may be attempted in various ways.

"On the one hand, an appropriate substitute for tannin may be sought in such tannin derivatives as possess the specific astringent properties of the mother substance, but which remain insoluble in the acid gastric juice.

"An attempt may also be made to prepare combinations of tannin which remain undissolved and unaltered in the stomach, but which are so gradually split up that the tannin is liberated little by little as an active component, and exerts its action in the alkaline intestinal contents as alkali tannate. One can readily be convinced of this by noting that such a solution of tannin in an alkali, and also in presence of excess of soda solution, still precipitates glue and albumin, has an astringent taste, and otherwise manifests all the properties of an astringent. This has already been demonstrated by the researches of LEWIN¹ and by the experiments of HEINZ,² who observed contraction of the vessels in the mesentery of the frog, and precipitation of albumin from rabbit's blood, after application of sodium tannate—effects wholly similar to those seen after use of tannin. A combination from which the tannin could be liberated only in the presence of an alkali would, therefore, meet the requirements.

"It was possible to so alter the albumin compound of tannic acid that it wholly meets these demands; while ordinary tannin albuminate dissolves in the acid gastric juice with the greatest readiness. In its preparation, I made use of the old experience of the albumin chemists, according to whom albuminous bodies, when subjected to long continued heating at high temperature, are rendered very slightly, or not at all, susceptible to gastric digestion. Tannin albuminate does not differ in this respect. Freshly precipitated tannin albuminate dissolves in the gastric juice with facility. A preparation dried in the air at 30° C. is somewhat more resistant to gastric digestion; but by dry heating for hours at high temperature, tannin albuminate may be made so resistant to pepsin digestion that it still remains insoluble after the action for days of a most active artificial gastric juice. By too long heating, the albumin compound is also rendered very difficult of solution in alkalies and during pancreatic digestion; at a definite degree of heating, however, an amount of resistance to gastric digestion sufficient for practical purposes is established, while the solubility in 1 per cent. soda solution and during pancreatic digestion, is preserved to such an extent as appears desirable for gradual disintegration of the preparation in the intestine. By experiment it was determined that heating for 5 to 6 hours at 110°–120° C. is sufficient for the purpose stated. If equal amounts of a tannin albuminate thus prepared and of one dried at 30° C. are placed in pepsin-hydrochloric acid, the unaltered preparation will be dissolved after 2 to 3 hours, while the greater portion of the sample altered by heating remains undissolved after 24 hours.

"The tannin albuminate altered in the manner described is a faintly yellow, tasteless powder, containing about 50 per cent. of tannic acid. Over tannin it possesses the advantage of remaining wholly inactive in the mouth and stomach; in the intestine, also, it is only gradually decomposed with the liberation of the inactive proteid components. In this way all of the tannin contained in the dose enters the intestine and, by virtue of the slight solu-

¹Virchow's Arch., LXXXI, p. 574.

²Ibid., CXVI, p. 220.

bility of the preparation, should also reach the lower portions of the digestive tract."

This new preparation was placed at my disposal by Dr. GOTTLIEB for the purpose of clinical tests. A *résumé* of the results obtained with tannalbin in the Moravian hospital at Brünn, from April to the end of 1895, will be given in the following.

My observations cover 40 cases and 118 days of administration. It may here be said that injurious or disagreeable effects were never noted. After a few preliminary tests of dosage, it was found that 1 gme. (15 grn.) could with perfect safety be administered to adults and old children, and 0.5 gme. ($7\frac{1}{2}$ grn.) to children under four years of age. These doses were adhered to in the whole series of cases, and, according to requirements, were repeated 2 to 4 times daily, so that the patients received up to 4 gme. (60 grn.) within 24 hours. In some instances it was considered advisable to administer the doses at short intervals—*e.g.*, in profuse acute diarrhea, every hour; in these cases three or four doses given within a period of three to eight hours will suffice for the full 24 hours. In the great majority of cases the remedy was given during three to four days; in the mean time the therapeutic results had been attained. In a few cases to be spoken of later, curative action did not occur and the remedy was suspended. In a few instances "tannalbin" was given for periods ranging from 5, 7, 12 days to several weeks, the daily quantity amounting to 2 to 3 gme.; no evil effects were observed. In adults it is not advisable to reduce the dose below 1 gme. (15 grn.). Since the solution of the preparation—*i.e.*, the liberation of the tannic acid in the intestine—occurs very gradually, a too cautious administration of the remedy causes its action to be questioned.

Tannalbin is odorless, tasteless, and agreeable to take. An aversion to its use was never noted. The gastric functions were never interfered with; none of the patients complained of disturbances such as nausea, gastric oppression, eructations, feeling of fullness, or any other subjective symptoms referable to alteration in the functions of the stomach. On the contrary, tannalbin was taken gladly and with much satisfaction by all patients; indeed, those suffering with chronic intestinal catarrh and who had enjoyed the benefits of the remedy for a number of days, would not submit to a change of treatment. The rule was for them to pray for its continuance. The tannalbin was administered in powder form unaccompanied by any menstruum.

For the purpose of testing at the bedside the resistance of the remedy to gastric digestion, we undertook the simultaneous administration of two preparations, one of which had been heated at 80° C., the other at 105°–110° C. The tests resulted most decidedly in favor of the latter, as is proven by the following case, in which both preparations were exhibited one after the other:

Z. JOHANN, *æt.* 35 years. Diagnosis: Chronic intestinal catarrh; *catarrhus apic. pulm. sin.* Patient has suffered for months with constant profuse diarrhea. Great emaciation; absence of sputum precludes definite statement as to the

nature of the affection; from evening of August 6 to 10 a.m. August 7, eight liquid stools. Patient received, between 1 p.m. and 7 p.m., 4.0 gme. of tannalbin heated at 110° C. Next day no stool; at night five liquid stools. On August 8, gave 3.0 gme. of the same preparation; from then until next morning no stool. On August 9, 1.0 gme. tannalbin; one stool at night. On August 10 no stool; powder suspended.

The result was brilliant and most gratifying. But, as might be expected in a condition in which the symptoms were so severe and of such long standing, permanent arrest of the trouble was not secured after such a short period of application. On August 11 but one liquid stool; on the morning of August 12 four stools. As the preparation previously employed was used up, the patient was given for five days 4.0 gme. of the preparation heated at 80° C., but with less effect. Although the diarrhea did not attain its original severity, the number of stools amounted to four daily.

These observations, as well as a number of others, induced us to employ in a subsequent series of 35 cases only that preparation which had been heated at high temperature. Regarding the pathological conditions in which tannalbin was employed, the majority of the cases were in the chronic or sub-acute stages—simple chronic intestinal catarrh, congestion catarrh accompanying disturbances of circulation, diarrheas attending chronic tuberculosis and nephritis; finally, such conditions as usually occur in the course of exhausting diseases. The acute cases included sudden and violent attacks of diarrhea of a simple catarrhal nature.

In reference to the effectiveness of tannalbin in these conditions, the action was most favorable in the whole group of chronic affections; indeed, in many cases it was surprising. This was especially true in simple catarrhal conditions of the intestine. Diarrheas which had lasted for two to seven weeks could be arrested within one to two days by full doses amounting to 3 to 4 gme. daily, and a further administration of 1 to 2 gme. daily for several days—at most weeks—usually sufficed to dissipate the affection.

MARIE P., *æt.* 40 years. Diagnosis: Chronic intestinal catarrh. Patient has suffered for a long time with constant diarrhea, attended by violent colicky pains. At present the stools have continued for fully nine days. Opium powder and tinc. opii proved ineffectual. On July 20, three liquid stools; from morning of July 21 to afternoon of July 22 five liquid stools; between 5 and 7 p.m., 3.0 gme. tannalbin; in the mean time two liquid stools; after 7 p.m. no more stools; for three days—July 23–25 inclusive—no stools. Pain entirely disappeared. July 26, a solid, normal stool. Patient discharged at own request.

EMILIE R., *æt.* 38 years. Diagnosis: Chronic intestinal catarrh. For four weeks constant, frequent, and profuse diarrhea, 5–7–10 stools daily. At first the stools were slimy (colon); later, wholly fluid. Great loss of flesh—20 lbs. from an original weight of 165 lbs. Tuberculosis excluded. Tannin without effect; subnitrate of bismuth was vomited; opium caused troublesome congestion. On August 2, seven stools. At 6 and 7 p.m., 1.0 gme. tannalbin; in the meantime one liquid stool, then no more stools until next morning. On the following day, 3.0 gme. tannalbin; no stool. August 4, a.m., two liquid stools; 3.0 gme. tannalbin during the day; no more stools. August 5, 2.0 gme. tannalbin, one profuse stool. From August 6 to 20, every morning 1.0 gme. tannalbin; daily, one stool, which gradually became more formed and firmer. With the subsidence of the severe intestinal disturbance the previously lost appetite returned, the psychical depression, which amounted to *tadium vita*, disappeared, and the weight increased two pounds.

HUBERT P., compositor, æt. 34. Diagnosis: *Gastroenteritis chronica, forsitana saturnina*. Patient has suffered for years with symptoms of a chronic intestinal catarrh. From his occupation, chronic lead poisoning might have existed, but the colic and other symptoms were absent. For six weeks violent increase in the symptoms; frequent vomiting and numerous stools—15 to 20 a day. October 6, 16 stools; October 7 and 8, 20 stools. Between 9 and 11 a.m., 3.0 gme. tannalbin; one stool at 1 p.m. October 9, 1.0 gme. tannalbin, two stools; October 10, 3.0 gme. tannalbin, one stool. As the supply of the remedy was exhausted, the patient was given twice daily an ordinary tannin enema. October 12, seven stools; from then on, always three. October 19, medication with tannalbin, 3.0 gme. daily, could be resumed. On the following day but one stool; on succeeding days, two stools; exceptionally, three stools. October 26 patient left the hospital greatly pleased, and of own accord, taking with him a number of tannalbin powders.

These certainly are most highly satisfactory results! In all the remaining cases of simple chronic intestinal catarrh the results, while not so brilliant as in the above mentioned cases, were gratifying in the extreme. In nine cases the most encouraging effects were constantly noted. With these simple catarrhs we will include several closely related cases. Of three cases of violent diarrheas dependent upon congestive catarrh attending old valvular lesions of the heart, in two good results were obtained. Likewise, two cases of severe and profuse diarrhea, accompanying nephritis, were very promptly alleviated by tannalbin; in one case the diarrhea persisted for two days, in the other for one day, after administration of the remedy. Finally, tannalbin acted most satisfactorily in two cases in which violent diarrhea developed during the course of severe exhausting diseases resulting from grave interference of metabolism.

MARIE M., æt. 14 years. Patient had been under treatment for months for a very severe chorea; in the mean time, the greatly emaciated individual had acquired a right-sided hypostatic pneumonia. In connection with this multiple abscesses developed, of which 20 had to be evacuated. High degree of marasmus; for one week violent diarrhea—on an average five stools daily. July 31, from 5 to 7 p.m., 3.0 gme. tannalbin; in the interval three stools; at night none. August 1, a.m., three stools; 3.0 gme. tannalbin; no stool until evening; for three days no stool; from that time on stools normal.

Another case, in which diarrhea dependent upon marasmic condition existed, took an analogous course.

These excellent and highly satisfactory results stand in contrast to a few easily explained failures. The latter were severe anatomical alterations of the intestinal mucous membrane, which no astringent remedy can heal. Of two cases, which subsequently came to autopsy, and in which tannalbin failed, extensive amyloid degeneration of the intestinal mucous membrane existed in one, and in the other a simple chronic intestinal catarrh, which, however, was attended by an unusually prolific cock's-comb-like papillary growth upon the mucous membrane extending from the jejunum to the rectum. In the presence of these great changes it would be irrational to either demand or expect astringent action from any remedy.

The diarrheas occurring in tuberculous individuals I have arranged in an especial group of 12 cases, because, next to the chronic intestinal catarrhs, they are of the greatest practical interest. Whether in individual cases these diarrheas are dependent

upon specific ulcerative processes, or are due to catarrh standing either in, near, or remote connection with the original disease, cannot be determined. Even though the existing ulcers cannot be reached by appropriate treatment, an astringent action exerted upon the catarrhally swollen mucous membrane, occupying the neighborhood of the ulcers, is to be recommended under all circumstances. In these instances tannalbin has been of the greatest service. Of the 12 cases, which, in great part were far advanced, 11 were freed of their diarrheas. In 2 cases, in whom the diarrhea had ceased within two or three days following the administration of 2.0 to 3.0 gme. of tannalbin, autopsy held several weeks later showed extensive, old tuberculous ulcers in the ileum and colon. All in all, tannalbin rendered excellent service in 25 out of 29 chronic and tuberculous cases treated with it.

The less numerous acute affections treated with tannalbin included diarrheas occurring suddenly in healthy or convalescent individuals, the cause depending either upon functional disturbances or slight acute intestinal catarrh. Of 10 such cases, 9 were favorably influenced by tannalbin.

In acute stages of severe intestinal affections, in toxic or infectious enteritis, dysentery, or cholera nostras, no result may perhaps be promised through an astringent action upon the mucous membrane; indeed, such action were better avoided. In two such cases, one of which manifested especially severe symptoms, a favorable influence upon the process could not be noted, although as much as 5.0 gme. of tannalbin were administered daily for several days. Especially to be mentioned is the beneficent action of tannalbin in a series of observations upon children. Of four cases in whom diarrhea developed after convalescence from diphtheria, in two instances a dose of 0.5 gme. sufficed to arrest the stools; in another case two such doses sufficed, and in but one instance—a child which had previously suffered from dyspepsia and diarrhea—was it necessary to administer 0.5 gme. daily for a period of four days, when the stools became normal. The ages of the children were 1, 2, 4, and 5 years respectively.

Equally as satisfactory were the results in two cases of chronic intestinal catarrh in children of $1\frac{1}{4}$ to $1\frac{1}{2}$ years of age. Because of the violence of the diarrhea quite large doses were given to both upon the first day—three doses of 0.5 gme. each. In the first case the diarrhea ceased at once, well-formed stools being passed as early as the day following the initial dose; in the second the previously uncontrollable frequent discharges at once sank to three daily. No pernicious by-effects attended these large doses. Furthermore, in both cases from the second day on doses of 0.5–1.0 gme. sufficed.

The conclusions to be drawn from these observations upon hospital patients are as follows:

That tannin albuminate (tannalbin) heated for hours at high temperature is resistant to gastric digestion, and is dissolved only in the intestine, is confirmed by clinical tests.

Even large doses employed for weeks do not give rise to alteration in the gastric functions. Within wide limits, tannalbin is a perfectly harmless remedy, possessing the great advantage of being absolutely devoid of taste.

In chronic intestinal catarrh of uncomplicated natures it is a reliable and certain remedy, producing the most satisfactory results. In diarrhea of phthisical cases it is also of much value. In severe and extensive anatomical lesions of the intestinal mucous membrane it is, of course, without effect. In acute diarrhea of functional or catarrhal nature its action is admirable.

In the exhibition of T., it is advisable to always administer large doses, at least in the earlier stages; in adults 1.0 gme. (15 grn.) a number of times daily—better two or three powders at intervals of one or two hours; in children, 0.5 gme. (7), once, twice, or three times daily. After one or two days' use, the dose may gradually be reduced.

MISCELLANEOUS ITEMS

Camphor and Creosote Incompatible.—DUNLOP (*Chem. and Drug.*, 1896, XLVII, p. 887)

At a recent meeting of the Glasgow and West of Scotland Pharmaceutical Association, the author submitted notes upon the following incompatible prescription:

Creosote	2	min.
Quinine Bisulphate.	1	grn.
Powdered Camphor.	1	grn.
Aloin	½	grn.
Alc. Ext. Belladonna.	1-24	grn.
Strychnine.	1-64	grn.
Prepare 48 such doses.		

All the ingredients except the creosote were mixed together, and then creosote pill-mass added. The combination immediately assumed the consistence of very soft soap. The addition of an equal quantity of absorbent powder (consisting of licorice powder 2 parts and tragacanth powder 1 part) still left it like soft putty.

Thus camphor and creosote, like camphor and carbolic acid, seem to be incompatible, even though kept well apart.

Intestinal Ailments of Nervous Origin.—VON ENGELHARDT (*Sem. méd.*, 1896, XVI, p. 8)

Researches of the last few years have established the existence of gastric ailments of purely nervous origin distinct from those of catarrhal origin. Similarly, we have intestinal troubles of nervous origin which must be distinguished from chronic catarrh of the intestines.

As regards the gastric troubles, the means of differentiation are quite satisfactory, but with reference to those of the intestines it is often difficult to distinguish between intestinal neuroses and chronic catarrh.

Clinical observations have convinced the author that the diagnosis of intestinal neuroses may be established in most cases of this affection by a group of quite characteristic symptoms. The symptoms are obtained from the general condition of the subject, certain peculiarities of the diarrhea, the influence diet exercises on the intestinal trouble, and the localization of the sensibility to pain in the abdomen. In chronic catarrh of the intestines the

patient usually loses flesh, and becomes weakened and anemic. On the other hand, subjects suffering with the nervous variety of enteric troubles seldom lose flesh; often they even present a florid appearance. In both varieties constipation, alternating with diarrhea, is often seen, but in chronic catarrh the diarrhea usually comes on at night or in the early morning; while in the nervous trouble it appears during the day, often after a meal or after some moral emotion.

Formerly, the presence of large quantities of mucus in the feces was considered a pathognomonic sign of catarrh. We now know, however, that "mucus colic" may be of purely nervous origin, as is frequently observed in hysterical patients.

The influence of diet upon the diarrhea is of great value as a means of differential diagnosis. In the case of chronic catarrh of the intestines, the slightest deviation from the *régime* increases the disorders of the digestive tract, and notably the diarrhea. On the contrary, subjects suffering with nervous enteropathy can eat all sorts of food without aggravation of the disease, as long as hypochondriacal auto-suggestion does not come into play. A sufficiently abundant mixed diet often produces great amelioration of the intestinal ailments in the latter cases.

As regards the palpation of the abdomen, to ascertain the nature of the affection, Dr. v. E. states that, in the case of nervous subjects, the abdominal aorta and the two iliac arteries are very sensitive to pressure, while the colon is usually not sensitive. The contrary is true in chronic catarrh of the intestines; here the colon, and especially its descending portion, is painful to pressure, whereas the abdominal aorta and the iliac arteries are not.

In practice, of course, cases are often met with where we have to do with intestinal affections of both catarrhal and nervous origin. In these it is important to know whether the nervous or the catarrhal element predominates, as upon this depends the choice of the therapeutical means to be employed.

The general treatment of subjects affected with intestinal troubles of nervous origin should be that to which we have recourse in cases of neurasthenia and of hysteria.

As regards the treatment which applies more directly to the intestinal ailments, Dr. v. E. aims mainly at putting the diseased organs at rest as much as possible. With this end in view, he sees to it that a thorough evacuation of the intestines takes place once a day, and in such a manner that no fecal matter remains to keep the parts in constant irritation. For this purpose the author has recourse, in the beginning of the treatment, to injections of a warm infusion of chamomile, administered daily, at exactly the same hour, and if possible at the time at which the patient usually has his first passage. The author maintains that hereby the intestines become accustomed to certain periods of rest, at first created artificially, but gradually becoming spontaneous. He also finds it useful to occasionally administer calcined magnesia.

The diet may comprise the use, in moderate quantities, of most foods, though substances which easily give rise to fermentative processes should be avoided. The grape cure has also given excellent results. As to mineral waters, these are considered as useless.

It is stated that, by the above means, a considerable amelioration is obtained in most cases; real cures, however, are but seldom effected, since the intestinal neurosis seems to be too deeply rooted in the organism.

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WILLIAM HENRY PORTER, M.D.

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NO DEAD ISSUE YET.—An investigation of Bellevue Hospital Medical College is to be made, so it is reported, by the Commissioners of Charities, with the end in view of determining the amount of rental which should be paid to the city for the use of the public lands it occupies; as also, incidentally, to determine what equity, if any, exists in the present arrangement whereby the profession in general has been displaced from positions in the charity hospitals. The new Commissioners of Public Charities are doing their duty after a conscientious fashion and as befits fair-minded men. Their course of action is very different from that which laid the old Charities Commissioners open to the reprobation of all men who recognize the fact that this world is little worth living in if equity is absolutely lost sight of.

THE INSANITY LAW.—The new insanity law is being freely criticised both in the lay and the medical press. The objections offered may be summarized as follows:

The existing state of affairs, with its patent evils, is simply perpetuated under the Revision Commission's bill. Only a single member of the Commission is required to possess any medical knowledge,

and he must have had five years' actual experience in the care and treatment of the insane, and have been a superintendent or first assistant physician of a State hospital. It is claimed that, under this ruling, the Commission will never have the best advice from a medical standpoint, since practically the medical member will rarely, after five years' experience, have that thorough knowledge of the needs of the insane that could be secured from more eminent specialists, were not the choice practically restricted to a medical man who had served in some one of the New York hospitals. In the past it has been a reproach to the State that the results secured in the insane hospitals have fallen far below the standard set in similar institutions elsewhere, and it is not unnatural to desire that under a new law improvement should follow where there is so much room for it. Further still, the Commission is charged with the execution of the laws relating to the care and treatment of the insane, including such regulations as may be necessary for their custody. This appears to many critics as being a dangerous power to place in the hands of a small commission, especially when, from its very composition, it is an open question if it can be kept free from political influence—the proven bane of every medical institution, be it charity hospital or refuge for the mentally incompetent. Again, this Commission has absolute control over the boards of managers of all the hospitals; it fixes the pay of all the officers and employes; buys every supply, and no contract can be deemed valid which does not receive the indorsement of the Commission. These are certainly vast powers to be conferred on any body of men, especially if again, as appears to be the case, the Commission cannot be elevated above the sphere of political influences. As one of our exchanges tersely expresses it: "The Commission will be in effect both autocratic and irresponsible. It will control with the hand of a despot the medical service, although it is not itself composed of medical men, and since it is not responsible to any higher power it might be exposed to pecuniary temptation, which, in case it were guilty, would probably never see the light of day, owing to the very fact that it is an autocracy."

When we remember that there are now in this State fully 20,000 dependent insane, that the increase is at the rate of about one hundred a month, and that the expenditure involved in their care approximates \$4,000,000 a year, our legislators should be extremely careful how they place vast and practically irresponsible powers in the

hands of a few men, only one of whom is a medical man; and, further, a medical man who may not always be of the stamp the community has a right to expect. The community demands that its insane shall have the best possible medical care, with the end in view of curing, when at all possible; and this can be secured only by obtaining the highest possible talent. Finally, the community has the right to expect that where such an enormous expenditure of the public money is involved the Commission should be enlarged and its powers be better defined and restricted, especially in the line of securing proper supervision. The State of New York is now divided into 11 hospital districts, and from each of these districts a commissioner should be chosen whose direct interest it will be to serve so as to merit the approbation of the inhabitants of the districts; for we assume that every individual in a given community would protest forcibly were obvious injustice inflicted on the dependent insane. Certainly it is the height of absurdity to frame a new commission which, in fact, will not alone be in the position of perpetuating the abuses of the past, but which, from the nature of the powers conferred, might magnify such abuses under the autocratic cloak which will enshroud it.

THE PREVENTION OF CONCEPTION.—We are credibly informed that in certain of the Turkish bathing establishments in the city of New York the employés are engaged in the not unprofitable industry of teaching the women patrons how to “sin and yet not conceive.” So-called anti-conception suppositories, containing the Lord only knows what, are retailed to credulous patrons at exorbitant rates, when we consider that the chances are that the chief, if not only, ingredient is a little boric acid, and when we recall the fact that in this question of conception there are so many slips “’twixt the cup and the lip”—that women conceive, notwithstanding the use of these agents, harmless or the reverse. In other words, not alone is the woman taught to use agents which may harm her or her mate, but the sale partakes of an element of *fraud*, since, like many another so-called cure, it is such only in name. The price charged for these suppositories is three dollars a dozen, and we venture the assertion that not one effective spermatozoon is killed by the whole dozen.

Seriously speaking, traffic such as described should come within the province of the law, for it is unquestionable that one of the most fruitful causes of disease in women is resort to methods for the prevention of conception.

Of course, since we are not living in patriarchal times, when a family of a dozen constituted no special burden, the average married couple must exercise foresight; but women should be taught, as also men, that the only harmless preventive is *abstinence*, and that the only too-common methods of “prevention” render both the woman and the man neurasthenic, if they do no worse. Such statements, possibly, do not apply in full force to the use of these so-called preventive suppositories; but the principle is the same, even if the agent referred to do not contain some strong astringent which will damage the woman and may injure the man. The future of the community resides in the health of its children, present and prospective, and would we see a decrease in the alarming preponderance of gynecological affections over almost every other, one of the means is the instruction of the laity in regard to the results following the teaching in this new school of instruction opened as an adjunct to certain bathing establishments.

THE FLOATING LODGING-HOUSE.—The opening of a lodging-house, where the needy may secure shelter and breakfast instead of being obliged to resort to the often foul and ill-ventilated police stations, is a step in the right direction, and the BULLETIN trusts that before long the Commissioners of Charities will see their way toward the maintenance of others in various parts of the city. The rule against the housing of chronic tramps, however, should be rigidly enforced, and those who obtain shelter for the night should in every case be made to earn their lodging and their food by being required to perform a certain amount of work in the morning. Thus will this venture lose the look of charity, which many a worthy unfortunate is unwilling to accept, and at the same time the chronic tramps will be weeded out most effectually from the ranks of charity, which they only abuse, giving absolutely nothing in return.

MISUSE OF MEDICATED WINES.—There can be no question that the profession should exercise the greatest caution in recommending to their patients the use of wines containing powerful drugs. There are many such preparations on the market, most of which, if not all, are probably compounded with great care and skill. They are palatable, and in certain pathological conditions are frequently quite useful agents. These preparations, it is true, contain drugs that are in common use by the profession.

With these facts clearly in mind, it is evident that every conscientious physician, no matter what his personal views may be as to the morality of the habitual use of alcoholic beverages, must admit that alcohol and its preparations hold a valuable position in therapy. At the same time he hesitates to assume the responsibility of starting a patient in the habitual use of alcoholics, unless there is a reasonable assurance that the individual can properly control its use in the future. The case is entirely different, however, when the patient has only a limited time to live, as one suffering from active tuberculosis, carcinoma, etc.

In case the alcoholic habit is developed as the result of its therapeutic use on the recommendation of the physician, the responsibility for arousing this unfortunate habit rests as surely on his shoulders as does the opium habit which has so frequently been developed in those cases in which the physician has taught the patient how to use the hypodermic syringe, or where he has given a prescription that sanctions the continued use of opium or any of its preparations. When the physician directly advises the use of a medicated wine, which is often fortified by a higher percentage of alcohol than is the case with the ordinary table wines, and one that also contains an unknown quantity of some drug, he runs a greater risk than occurs when he recommends the use of ordinary wines. For there is the double risk of producing both the alcoholic and the drug habit, a danger too lightly considered and not generally recognized.

The medicated wines to be recommended with caution are the elixirs and wines that are heavily charged with alcohol, and which may also contain opium, cocaine, etc. The use of cocaine has rapidly spread during the last three or four years, chiefly through ignorance on the part of the public and the profession as to its possible dangers. This habit has been started in two ways: first, by incautious and promiscuous use of cocaine solutions as a nasal or throat spray, and by giving prescriptions for such solutions to the patient to be used *ad libitum* for colds, catarrhs, etc.; second, through the too common use, without medical advice, of the popular wines containing coca or cocaine in some form. Thus they have gained an extensive patronage among those who suffer from nervousness or weakness of any form.

The administration of coca or cocaine as a therapeutic agent in certain conditions has proved this remedy to be a very valuable one. The promptness of its action in these instances and the peculiarly pleasing sensations produced by the action of the

drug upon the system, is a source of danger for all who incautiously begin to take this substance regularly. For this reason every one who may have occasion to order this drug in any form should guard both himself and the patient against its continued use by having it distinctly understood that the prescription is not for general use and should not be refilled.

The most pronounced symptom of cocaineism is an intense desire to repeat and increase the dose at shortening intervals. It has been said that, while opium and morphine may be taken constantly for a long time without causing any loss of flesh or any lowering of the physical or mental powers cocaine from the very beginning has a marked effect upon the tissues of the body and especially those that constitute the nervous system, and that from it there is a rapid deterioration in the tone of the general health. Both of these statements, however, must be accepted with caution and not too broadly or completely. Instead of soothing, like opium, the tendency of cocaine is to overstimulate, followed by a prompt reaction, and an uncontrollable insomnia and terrible restlessness, which, if the use of the drug is continued, will eventually produce pronounced mental deterioration.

These mental changes are very distinct and typical in the method of their development, showing themselves in the beginning as characteristic hallucinations. This is followed by peculiar sensations in the skin, hearing, and sight. Finally there are developed definite delusions of persecution with homicidal impulses. The morphinist in the latter stages may develop suicidal tendencies, but cocaineists appear to have a decided tendency to commit acts of violence even early in the course of the habit, which makes them dangerous to society.

While the victims of alcoholism and morphinism may recover under careful treatment, it seems certain, from experience thus far acquired in the treatment of cocaineism, that it is more difficult to manage these cases, and that even under the best conditions they are less likely to give up the pernicious habit than is the case with alcohol and opium and its preparations.

ACCURATE REFERENCES.—The frequency of inaccuracy occurring in the lists of references appended to many medical articles soon becomes apparent to any one engaged in the review of the literature of any medical subject. It is in regard to the date of publication that these mistakes are most frequently found, although sometimes both the date and the

name of the publishing journal are incorrectly quoted.

Such errors arise in one of two ways:

First, the article sought for is found, not in its original form, but in abstract, in some of the reviews and annuals. In this way, without knowledge of their correctness, both abstract and reference are vouched for by the writer. Such methods should be avoided when possible; if the original paper is not obtainable, or if it is in a language which the writer does not read, the reference should be given, not to the publication in which the article referred to originally appeared, but to the one in which it was found abstracted.

The second and more frequent source of error in reference is to be found in the various stages which intervene between the library and the publication office. A reference which correctly, though illegibly, begins its career may have assumed a very different form when it has passed through the hands of the typewriter and printer. For such disasters careful proofreading by the author may to a certain extent be a preventive.

While it is a serious annoyance to the student to be delayed or misled by inaccurate references, the greatest disadvantage reacts upon him who is responsible for them.

For the reader, whose patience is tried by being misdirected, is ready to infer that other statements of the writer may be equally incorrect.

The proper, and the only, way to avoid the perpetuation and exaggeration of original manuscript errors is not to make them in the copy. If you write illegibly, then you may expect the most fantastic results, for the compositor's and the proof-reader's imaginations are more lively than the poet's. Writers, be they contributors or editors, should always bear in mind that figures and proper names cannot be guessed; these *must* be written plainly—"printed," if necessary; the discerning faculties of the managing editor, the compositor, the proof-reader, and the copy-holder combined are generally sufficient to solve the ordinary mysteries of straight copy.

TROPHIC INFLUENCE OF THE GASSERIAN GANGLION UPON THE EYEBALL.—The article of W. W. KEEN, published in the *American Journal of the Medical Sciences* for January, 1896, on "Operations on the Gasserian Ganglion," an abstract of which is given in another column, calls up again the question of the trophic influence of this ganglion upon the eyeball, and the cornea in particular. The [author of the present article seems to lean quite] strongly to

the opinion that the ophthalmic division of the fifth nerve bears trophic fibers to the eyeball, and arrives at that conclusion from his personal experience; for, after having taken every precaution in two of his cases, in which he accomplished the complete removal or destruction of the ganglion, corneal ulcers developed, which gave some trouble. He is, therefore, led to the opinion that, in complete removal of the ganglion, the danger to the eyeball is considerably increased.

Supposing, however, the ophthalmic division to bear trophic fibers, we should infer that when this division was severed the trophic influences of the ganglion would cease, and, as division of this portion of the nerve was necessarily practiced in all the operations, we should think that one might equally well reason from those cases showing no change in the cornea (which constituted the Doctor's four first operations) that the Gasserian ganglion had no trophic influence whatever over the eyeball. And this is exactly the conclusion one is obliged to face if the experimental work on this subject is taken into consideration. From 12 cases in monkeys in which section was practiced behind the Gasserian ganglion, FERRIER (Brain, Part 1, 1894) concludes that "there is no necessary tendency to progressive inflammation of the eyeball following division in this portion of the nerve;" and the same conclusion is reached from five cases in which section was practiced between the ganglion and the eyeball. In all of these cases no extra precautions were taken to protect the eye, and, unless irritated by some means, the eyeball remained healthy, and when irritated, either experimentally or otherwise, it showed the usual tendency to repair. Furthermore, microscopical examination of the cornea failed to reveal anything unusual in the corneal cells in either set of experiments.

TURNER'S experimental work (*British Medical Journal*, November 23, 1895) points in the same direction, and he concludes, as quoted by KEEN, that "there is no evidence of trophic influence exerted by the Gasserian ganglion upon the cornea; and that, provided septic organisms are excluded, the ophthalmic branch may be safely divided, or the Gasserian ganglion removed, without fear of the disorganization of the eye."

Bearing all these facts in mind, we would seem quite justified in accepting the conclusion reached by FERRIER, that it is highly improbable that there are in the ophthalmic division of the fifth nerve any fibers bearing trophic influences to the eyeball, apart from those conferring sensibility upon it.

GENERAL MEDICINE

Department Editors

WILLIAM CHARLES GUTH, M.D.

and

HENRY TURNER BROOKS, M.D.

Collaborators

ADOLPH ZEH, M.D., ADOLPH BARON, M.D., JOHN HOCH, M.D., WILLIAM VISSMAN, M.D., WILLIAM Y. FINCH, M.D., GEORGE W. BLANCHARD, M.D.

Relation of Uric-acid Excretion to Leucocytosis.

—W. KUEHNAU (*Zeit. f. klin. Med.*, 1895, XXVIII, No. 5-6, pp. 534-566)

The author's conclusions are as follows:

1. In a series of diseases in which leucocytosis occurs, an increase in uric-acid excretion is recognizable.
2. The augmentation in the excretion of uric acid cannot be caused by the fever alone, since it also occurs in diseases which run an apyrexial course—*e. g.*, cachectic leucocytosis.
3. Rapid subsidence of a leucocytosis is accompanied by an increased excretion of urates.
4. The experimental production of leucocytosis is associated with an increased excretion of urates; the latter attains its acme on disappearance of the leucocytosis.
5. An increase in uric-acid excretion can be originated without the intervention of leucocytosis by the introduction of material containing leucocytes—*e. g.*, thymus suspension, aseptic pus.
6. Injection of nuclein causes a direct increase in the excretion of urates. The synchronous appearance of leucocytosis cannot alone be made responsible for the augmented urate excretion.
7. The leucocytes are the principal, if not the exclusive, source of the formative materials of uric acid.

Comparative Anatomy of the Bile and Pancreatic Ducts in Mammals, Studied from the Physiologic Standpoint of Fat-digestion. — B. K. RACHFORD (*Medicine*, I, 1895)

From an extensive table showing the comparative anatomy of the bile and pancreatic ducts in mammals, and from a series of anatomic conclusions drawn from physiological data, the following four conclusions are derived:

1. In animals taking a quantity of fat in their food, the bile and pancreatic juice should be poured into the duodenum through a common opening, so as to provide for the preliminary mixing of the bile and pancreatic juice before they come in contact with the food.
2. In animals taking a large quantity of fat in their food, the bile and pancreatic juice should not only be poured into the duodenum through a common opening, but this common opening should be near the pylorus, so as to provide for the mixing of the bile and pancreatic juice with the acid contents from the stomach high up in the duodenum; and the greater the percentage of fat in the food of the animal the nearer should this common opening be to the pylorus.

As an example: the common opening in the sheep is from 30 to 40 ctm. from the pylorus, or about eight times the distance that it is in the carnivora; while in man, taking considerable fat in his food, the common opening of the bile and pancreatic ducts is about 7 or 8 ctm. below the pylorus. The measurements found in the herbivorous gorilla and chimpanzee are in marked contrast to those in

man, for in these last two named animals the common opening is from 15 to 30 ctm. below the pylorus.

3. In animals taking considerable fat in their food, a gall-bladder is necessary, in order to provide sufficient bile at the proper time to enable the pancreatic juice to accomplish in the duodenum the amount of fat-splitting necessary to the emulsification and absorption of fat in the jejunum and ileum.

4. In animals taking considerable fat in their food, the anatomic conditions should be such as to retard the rate of passage of food-stuffs through the duodenum, so that the food shall be exposed to the action of the pancreatic juice in the duodenum long enough for the requisite amount of fat-splitting to be accomplished.

The Relation Between Hemic and Organic Cardiac Murmurs. — SOLOMON C. SMITH (*The Hospital*, 1896, XIX)

At the outset, it is well to understand that in a sense all cardiac bruits are hemic. Sounds are produced in two ways, broadly speaking, by fluids flowing through tubes, or into cavities: first, by the vibration of some free edge, or membrane, or of some projecting substance floating in the blood-stream, in which case the vibration is primarily conducted into the base to which this membrane is attached, and conveyed only secondarily to the blood-stream; and, second, by the flow of a comparatively narrow stream of fluid into a wider cavity, producing what has been termed a fluid vein. In such a case the primary vibration is in the fluid, and passes in the direction of its flow, and only secondarily affects the walls of the vessels and cavities in which the fluid lies.

A temporary dilatation of the ventricle may cause an incompetence of the auriculo-ventricular valves, producing a sound precisely similar in its method of production to what takes place when the valves are rendered incompetent by organic puckering—the difference being that in organic disease there is usually a certain amount of hypertrophy, and the apex is firmly held against the chest-walls during the production of the bruit, so that this is conducted far to the left along the ribs, while in functional maladies such is not usually the case.

A regurgitant bruit is always, in reality, organic, resulting from a leaky valve; and thus, in regard to it, the author says, the problem does not lie between hemic and organic, but between recoverable and unrecoverable valvular incompetence.

In the condition of stenosis the bruit is produced by twirls and eddies in the blood-stream, some portions of the blood being projected with greater rapidity through the more slowly moving mass, by which means sonorous vibrations are set up. This is the same manner in which the true hemic bruits of anemia are caused; therefore, it is difficult to pronounce with certainty the origin of a sound by means of its character alone.

A bruit produced in the blood-stream tends to be conducted in the direction of the current. Such a murmur may be soft or may be loud and roaring, and accompanied by a thrill. When murmurs are produced primarily in the valves, they tend to be conducted to the surface by any dense fibrous tissue in the neighborhood. Dr. S says there is much reason to believe that the murmur so characteristic of mitral stenosis—*viz.*, the presystolic—is a truly hemic sound, while some of the other bruits, the early diastolic for example, which have been found associated with that condition, may be of a valvular type.

An anemic bruit is but rarely produced in the aorta. Many direct aortic murmurs are examples of the hemic type of sounds.

The distinction between "organic" and "inorganic" must be drawn, not from anything in the sounds themselves, but from the known readiness with which functional bruits are produced at certain localities and at certain points in the heart cycle. We must also consider the presence or absence of clearly hemic bruits in other localities; also the condition of the arteries, such as high tension. Conditions which indicate the presence of the compensatory changes in the heart, which usually follow organic disease, should be looked for.

Vibrios Simulating those of Asiatic Cholera in Severe Cases of Diarrhea.—GOTTSCHELICH (*Zeit. f. Hyg. u. Infectkh.*, XX, pp. 489-501)

During 1893-94-95 the stools of quite a number of patients suffering with severe and malignant diarrheas were examined at the Hygienic Institute of Breslau. There were no cholera vibrios found, nor did the epidemiological conditions justify suspicion. However, the season in which these cases occurred resembled that in which, according to V. PETTENKOFER, cholera is most frequent.

In these cases peptone-water cultures revealed an organism that was difficult to distinguish from cholera bacilli, even though they differed in some morphological and biological peculiarities. As these organisms are not numerous in the stools, the author advises that gelatine plates be made from the feces at the same time as the peptone-water cultures are made. Should the plates prove negative, then a positive result with peptone-bouillon would only justify a positive diagnosis after Pfeiffer's test proved positive. Isolated cholera vibrios occurred in only two instances in 1500 cases observed in Breslau.

Quantitative Estimation of Sugar in Urine.—R. PAULUS (*Corr. f. Schweiz. Aerzt.*, 1895, No. 16, p. 508)

The quantitative sugar estimation here recommended is a modification of Fehling's tritration method. Like the latter, it is based upon the well-known fact that the copper oxide of 1 c.c. of Fehling's solution is reduced by 0.005 mg. sugar. It is as follows:

Exactly 2 c.c. of Fehling's solution are measured with a pipette and added to 20 c.c. of distilled water in a test-tube. The solution of 2 c.c. Fehling's solution in 20 c.c. water has a clear, light-blue color. The mixture is held over a spirit-flame and heated to boiling. Then, by means of a pipette, the urine to be examined is slowly added, drop at a time, and the solution gently boiled. The color of the solution by transmitted light is to be noted after addition of each drop. Sooner or later there comes a time when, after addition of a drop, the blue color suddenly changes to yellow. When this has occurred, a few more drops of urine are cautiously added until all of the copper oxide is reduced and precipitated as suboxide. Since 2 c.c. Fehling's solution are employed, the number of drops of urine added must contain exactly 0.01 ctg. sugar; and as 20 drops generally make 1 c.c., the percentage of sugar can readily be reckoned, since the number of drops of urine added is in inverse proportion to the sugar content of the urine. In other words, in order to estimate the percentage of sugar after conclusion of the reaction, it is

only necessary to divide 20 by the number of drops of urine employed. The number thus obtained gives the percentage of sugar. While this method is not absolutely accurate, the author considers it sufficiently approximate for all practical purposes.

In the conduction of this method only fresh Fehling's solution should be used. This can readily be accomplished by keeping both constituents of the Fehling's, the Rochelle salt, and the copper sulphate solutions separate. Dissolve 34.639 gme. of pure crystalline copper sulphate in 200 c.c. water and dilute to 500 c.c. Place in glass-stoppered bottle. Dissolve 173 gme. Rochelle salt in 350 c.c. pure caustic soda of a spec. grav. of 1.14, and dilute to 500. Glass-stoppered bottle. Immediately before use, equal parts of these two solutions are mixed together.

The Pathology of Pernicious Anemia.—WM. HUNTER (*Brit. Med. Jour.*, 1896, No. 1832, p. 326)

There are pathological reasons for considering pernicious anemia, if not a special disease, as a special variety of anemia. The grounds for this belief are: (1) The extreme blood change which pernicious anemia always shows is marked by lesions characteristic as regards their nature, degree, or association. They are met in the liver, and often in the kidneys and spleen. (2) These lesions are absent in traumatic anemia, and in wasting diseases. (3) They consist mostly of deposits of blood pigment, with increased iron in the outer two-thirds of the hepatic lobule, often in the hepatic capillaries, and in the cells of the renal convoluted tubules. (4) The pigment is not the result of extravasation. (5) From its character and amount it denotes an excessive blood destruction—the prominent, constant, and characteristic feature of the disease.

This blood destruction differs from the ordinary normal destruction of blood. In common with the latter it occurs in the area of the portal circulation, in the spleen, in the gastro-intestinal capillaries, and to a less extent in the hepatic capillaries. Blood destruction in pernicious anemia differs from that of malaria, because in the latter the individual red cell is the seat of disease, and from that of paroxysmal hemoglobinuria, because in that disease the liberation of hemoglobin occurs in the general circulation.

As blood destruction in pernicious anemia is limited to the portal circulation, the poison causing it is also in this area. That the increased amount of iron in the liver is not due to the absorption of extravasated blood is conclusively proved by the author's experiments. If pernicious anemia is regarded as the result of poisons absorbed from the gastro-intestinal tract, then it must be considered as in the same category as chlorosis and the other forms of "intestinal anemias" (according to Sir ANDREW CLARK the result of toxin absorption from the intestine). Yet there is a great contrast between pernicious anemia and chlorosis; the latter is the result of defective blood formation, and the former the result of excessive blood destruction. But there is no evidence to connect the deficient formation of hemoglobin with the absorption of toxic products from the intestine. As the blood destruction in pernicious anemia is limited to the portal circulation, it is reasonable to deduce that it is due to agents that reach the portal area from the intestine. The special factor underlying pernicious anemia is the presence of specific organisms in the gastro-intestinal tract; in short, a specific form of gastro-intestinal infection.

NEUROLOGY AND PSYCHIATRY

Department Editor
PEARCE BAILEY, M.D.

Collaborators

ALBERT WARREN FERRIS, M.D., LEWIS A. CONNER, M.D.,
THOMAS PECK PROUT, M.D., and L. PIERCE CLARK, M.D.

Multiple Tumors of the Brain.—F. W. LANGDON (*Brain*, 1895, IV, p. 551)

The tumors were a fibro-cystoma of the pons and cerebellum and multiple fibro-psammomata of dura, pia-arachnoid and cortex cerebri. They existed in the case of a woman, aged 32, who had had no illness except measles and trifling children's diseases up to the age of 25. At this age she had a severe attack of "cholera morbus," followed by "nervous trouble" ever thereafter. At 27 she was deaf in both ears and suffered from headaches, accompanied by nausea; vision perfect and eyes normal, except compound hypermetropic astigmatism in both eyes. Two years later she showed marked papillitis in both eyes; right vision 0.9, left vision 0.7; the vision in the right eye altering during the test from 0.7 to 0.4, and rising again to 0.7. The upper part of the field of vision was contracted and also the field for red. Three years later she was suffering severe pain, with paralysis of right abducens and right diplopia, central vision remaining normal. Thirty-nine days before her death she presented the following syndrome: Violent paroxysmal pains in the head, hyperesthesia over right side of scalp, diplopia, bilateral deafness, left hemiparesis, vomiting with nausea, optic neuritis and abducens paralysis, with gait tending toward the left.

Diagnosis was made of tumor at base of brain pressing on pons and involving the fourth, fifth, seventh, and eighth nerves or their nuclei, the growth in the pons being probably in the upper half of the right side; the vomiting and rotatory gait being accounted for on the supposition that there was irritation of the cerebellar peduncles.

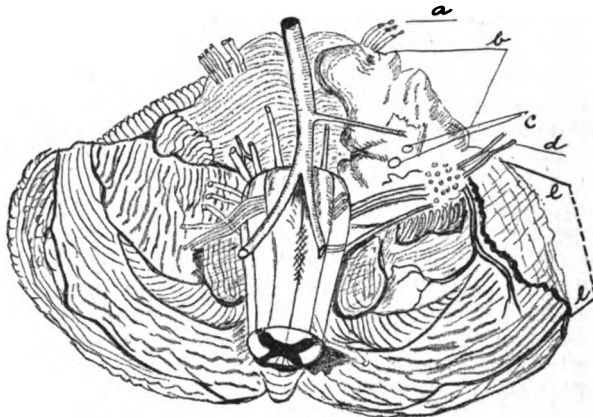
At autopsy an ovoid psammoma was found in the lower border of the falx cerebri, between the layers of the falx, which had absorbed the left layer over its central two-thirds. A second psammoma was found at the superior margin of the falx, posterior to the first. Three other psammomata projected from the inner surface of the dura of the convexity over the posterior extremities of the first and second frontal convolutions. A sixth projected from the under surface of the dura, within its layers, to the right of the longitudinal sinus, nearly at the upper extremity of the fissure of Rolando. A seventh was found in the meshes of the pia anterior to the *lamina cinerea*, bridging the longitudinal fissure and slightly penetrating the cortex of both frontal lobes. The eighth tumor, a fibroma, projected from the under surface of the pons on the left side. It was a firm, irregularly nodular yellowish, encapsulated mass, the size of an English walnut, though flattened. It involved the left lateral half of the pons for its posterior two-thirds and invaded the anterolateral margin of the left cerebellar hemisphere. Continuous with it was a thin-walled cystic portion containing a half ounce of amber, viscid fluid. The left cerebellar hemisphere was compressed, softened, and semi-diffuent. The pons was displaced to the right, its left half being compressed and atrophied.

The injury to the fifth, seventh, eighth, ninth, tenth, and eleventh nerves, is shown in the sketch,

as also the anomalous course of the left anterior inferior cerebellar artery.

The lateral ventricles were found to be markedly dilated; the choroid plexuses were fringed with numerous clean, round, miliary, cystic dilatations.

The author acknowledges his error in diagnosis as regards the side of the pontine lesion. He explains the right-sided scalp hyperesthesia as due to the fact that the displacement to the right probably presses the right fifth nerve against the petrous bone. The bilateral deafness was due to the direct involvement of the left acoustic nerve by the neoplasm,



a. FIFTH NERVE; b. SOLID PORTION OF TUMOR; c. STUMPS OF 7TH AND 8TH NERVES; d. REMAINS OF 9TH, 10TH, AND 11TH NERVES; e-e, CYSTIC PORTION OF TUMOR. (FROM *Brain*.)

and to the pressure on the pons, affecting the fibers from the right nuclei in their course toward the cortex, through pons, crus, and internal capsule. Certain fibers of the *portio dura* maintained their power of conduction, hence no complete facial paralysis. The left motor paresis was due to pressure on the pyramidal fibers after their crossing.

It is interesting to add that the patient secured relief from intracranial pain by assuming a semi-opisthotonic position, resting her head on its vertex, thus removing the weight off the left fifth nerve. Antipyrine afforded more relief than morphine in the palliative treatment of the case.

Remarks on Operation on the Gasserian Ganglion.—W. W. KEEN (*Am. J. of Med. Sci.*, January, 1896)

The author used the Hartley-Krause operation, and discussed the subject under six heads:

1. Access to the cranial cavity is had by means of an osteoplastic flap formed in the temporal region by a large horseshoe-shaped incision, one end of which begins just in front of the ear, the other an inch behind the orbital margin of the external angular process.

2. Hemorrhage from the middle meningeal. The small branches are ligated by means of the smaller semicircular needle of Hagedorn threaded with silk. When in a bony canal the bone is rapidly gnawed away, while the fingers protect the vessel, which is then ligated; and in rupture at the foramen spinosum a plug of iodoform gauze controlled the hemorrhage. This was removed carefully, on the third day, without any further trouble.

3. Lifting the temporo-sphenoidal lobe from the middle fossa of the skull is best done gently by the forefinger, and the brain and its membranes are held up by a spatula. Hemorrhage from the small vessels of the middle fossa is controlled by packing with iodoform gauze.

4. Removal of the ganglion and its third division is accomplished by seizing the ganglion itself with a

pair of hemostatic forceps, cutting the second and third divisions at their foramina; then by gentle but firm rotation of the forceps the ganglion can be avulsed.

The author believes that this technique (which we owe to KRAUSE) is quite essential if we accomplish the removal of the ganglion.

5. Effect of operation on the ganglion upon the cornea. The author had no trouble in his first four cases. In the fifth case a corneal ulcer formed shortly after the operation, notwithstanding precautions. In the sixth case he stitched the lids together to prevent opening of the eye; after four days the stitches were removed, and in 24 hours a corneal ulcer developed. The question is raised as to whether or not the complete removal or complete destruction of the ganglion does not needlessly imperil the eyes, and the author leans quite strongly to that opinion, notwithstanding the experimental work of TURNER and V. HIPPEL, which he quotes.

6. Results as to recovery and cure: KRAUSE reports 22 cases done after Rose's method, with a mortality of four, or 18 per cent. In 51 operations by the Hartley-Krause method, the mortality has been five, or 9.8 per cent. The results are far more permanent than the peripheral operations. Only three recurrences have been reported, all of which were only partial.

MATERIA MEDICA

Department Editor

WILLIAM FANKHAUSER, M.D.

Antidiabetin, a Diabetic Sugar.—(*Pharm. Ztg.*, 1896, XLI, p. 29)

Antidiabetin, a new preparation put on the market in France, is said to be a mixture of saccharin and mannit. It is intended to replace cane-sugar in the diet of diabetic patients. It is supposed to combine the sweetening power of saccharin with the nourishing properties of mannit.

Antidiabetin is put on the market in three strengths: Nos. 70, 10, and 1, according to its sweetening power, the numbers representing the ratio of its sweetening power as compared with that of cane-sugar.

Improved Blaud's Pills.—WM. LYON (*Chem. and Drug.*, 1896, XLVII, p. 887)

The author has conducted a series of experiments with the view of reducing the size of Blaud's pills (pills of iron carbonate). After many trials he found the following formula to be equal to the B. P. pill in every respect, while the bulk is one-fifth less:

Potassium Carbonate, dried.....	30 grn.
Iron Su:phate, dried.....	36 grn.
Powdered Sugar.....	15 grn.
Powdered Tragacanth.....	3 grn.
Glycerin.....	2 min.
Syrup.....	10 min.

(Or a sufficiency)

It is maintained that by using carefully dried sulphate of iron pharmacists may rely on this formula giving a pill-mass that will meet every test that can be applied to the B. P. mass. Pills made as above can be readily varnished with ethereal solution of tolu. Another method that gives a nice result is to moisten the surface of them in finely powdered wood-charcoal, and when dry to varnish with tolu solution. Thus treated, they have a nice, glossy black appearance, and the gradual oxidation of the pill is not observed by the patient.

Kosotoxin.—M. HANDMANN (*Pharm. Ztg.*, 1896, XLI, p. 30)

"Kosotoxin" is the name given by LEICHSENING to one of the active principles of kousso (koso) flowers, which he has isolated from the ethereal extract of the latter. He found the flowers to contain about 1½ per cent. of this principle. Kosotoxin occurs as a yellowish-white powder, which is readily soluble in alcohol, ether, chloroform, benzol, carbon disulphide, or acetone, but insoluble in water; it is soluble also in aqueous solutions of the alkali carbonates; melting-point, 80° C. (176° F.).

Its physiologic action has been investigated by Dr. HANDMANN, who has found that the remedy is a strong muscle-poison, while it has but little influence on the central nervous system.

Pyrantin, an Antipyretic.—DE GIOVANNI (*Pharm. Ztg.*, 1896, XLI, p. 71)

Pyrantin, a new compound prepared by Prof. A. PIUTTI, is described as para-ethoxylphenylsuccinimide, of the formula $(CH_3CO)_2.N.C_6H_4.OC_2H_5$. It is obtained by fusing either para-amidophenetol or phenacetin with succinic acid, and extracting with boiling alcohol, when it is obtained in the form of colorless, prismatic needles, which melt at 155° C. (311° F.), soluble in 13.17 parts water at 17° C. (62.6° F.), and in 83.6 parts of boiling water; insoluble in ether. Treated with hydrochloric acid, or with melting potassium bisulphate, pyrantin is decomposed into succinic acid and para-phenetidine. A solution of 0.05 gme. in 2 to 3 c.c. of concentrated hydrochloric acid yields, after being diluted with water, a ruby-red color on the addition of one drop of a 0.3-per-cent. solution of chromic acid. Ammonia and chlorine water impart a light-yellow coloration to aqueous solutions of pyrantin.

Soluble pyrantin is the sodium salt of para-ethoxylphenylsuccinamic acid. It is readily soluble in water, and possesses the same physiological action as pyrantin.

Both preparations have been investigated as regards their therapeutical application, and have been found to possess useful antipyretic properties. They lower the temperature of the body, it is claimed, 1 to 3° C. (1.8 to 5.4 °F.), without exerting any effect upon the blood, the heart, or the respiratory organs. DE GIOVANNI recommends pyrantin especially in fevers of a rheumatic nature, in daily doses of from 1 to 3 gme. (15½ to 46 grn.).

Thyreiodine.—G. BAUMANN (*Pharm. Ztg.*, 1896, XXXVII, p. 58)

The active principle of the thyroid glands has at various times been supposed to be thyreoidin, thyreoproteid, and lastly thyreoantitoxin. Now comes the author with the claim to have obtained from the thyroid glands an organic compound containing a large percentage of iodine (besides ½ per cent. of phosphorus), which compound he designates "thyreiodine," and which he considers the active principle of the glands. Experiments conducted by Dr. ROOS seem to show that this new body has the same effect upon the human organism as the thyroid gland itself.

The author obtains thyreiodine in the following manner: The thyroid gland is hashed and boiled for several days with a 10-per-cent. solution of sulphuric acid, whereby a fine, flaky precipitate is formed, which is separated and repeatedly boiled with 85 per

cent. alcohol. The residue obtained on evaporating the alcoholic liquor is dissolved in soda solution, the solution thus obtained filtered and treated with diluted sulphuric acid, when thyreiodine separates as a brown amorphous substance.

SURGERY

OPHTHALMOLOGY, OTOTOLOGY, RHINOLOGY,
LARYNGOLOGY, DERMATOLOGY, ORTHO-
PEDIC AND GENITO-URINARY SURGERY

Department Editor
SAMUEL LLOYD, M.D.

GENERAL

In charge of B. FARQUHAR CURTIS, M.D., WILLIAM B. COLEY, M.D., E. M. FOOTE, M.D.

Preliminary Resection of the Posterior Edge of the Lower Jaw for Extirpation of the Parotid.—FAURE (*Gaz. des Hôpitaux*, 1895, p. 353)

FAURE claims that it is impossible to be certain that the parotid has been entirely removed, unless the surgeon at the same time resects the edge of the ascending ramus of the jaw, behind which a lobe of the gland is inserted. The facial paralysis which inevitably follows complete removal of the gland compels us to limit that operation to the treatment of malignant tumors of the organ, but it is indispensable for the cure of these cases. He suggests an incision, the vertical branch lying in front of the ear and just behind the angle of the jaw, and the horizontal branch running forward about the middle of the former, a finger's breadth below the zygoma. The skin-flaps are dissected up, the anterior lower corner of the gland first freed, then the upper, and then the gland is turned back toward the neck. As it is important to remove every portion of the gland, the aponeurosis covering the sterno-mastoid is cut away with that part of the gland which adheres to it. The carotid must be ligated before division, and also the temporal above. The posterior edge of the ascending ramus of the jaw is then freed from the soft parts and gnawed away by rongeurs to a depth of 1 cm., beginning the removal of bone about 2 cm. above the angle and carefully avoiding weakening the base of the condyle above, or injuring the inferior dental nerve in its canal in the center of the ramus. The deeper part of the gland can then readily be removed, all vessels being secured before division, as they are in full sight.

Suture of Arteries.—HEIDENHAIN (*Centralbl. f. Chir.*, 1895, p. 1113)

To the cases of arterial suture by ZOEGE-MANTEUFFEL and ISRAEL, HEIDENHAIN adds a third. In operating upon a large carcinoma of the breast an assistant wounded the axillary artery laterally with the scissors. The wound was a longitudinal slit a full centimeter in length. It was closed with three broad beaked forceps and then sutured with a continuous fine catgut suture placed with a round intestinal needle, turning in so little of the vessel that its caliber did not appear narrowed. A portion of the axillary vein had to be resected because it was involved in the disease. The axilla was tamponed and closed with secondary sutures in 48 hours. The pulsation of the artery continued, and six months later could be distinctly felt pulsating throughout the axilla. HEIDENHAIN prefers to

bring endothelial surfaces in contact, rather than to invert the wall and sew only the adventitia and media, leaving the intima untouched, as most experimenters have done.

Transplantation of Skin by Scrapings.—MANGOLDT (*Deut. med. Wochens.*, 1895, p. 798)

MANGOLDT recommends covering surfaces requiring skin-grafting with epithelial shreds obtained by scraping the surface of the skin with a sharp razor held vertically to it, the scraping being continued until the top of the papillæ is reached. Granulating surfaces are to be freshened, other wounds simply dried. The scrapings of the epidermis are spread over the surface of the wound, and the parts dressed in the usual way. The wounds require about three weeks to heal, and then cannot be distinguished from those covered with Thiersch grafts.

Twelve Cases of Gastrostomy for Malignant Disease.—SCHÖNWERTH (*München. med. Woch.*, 1895, p. 437)

SCHÖNWERTH reports upon 12 gastrostomies performed at the Munich clinic for malignant disease of the esophagus (one case of malignant struma), the operations being done according to Fenger's method of simply securing a fold of the stomach in the abdominal wound, and opening it on the second or third day, except one operated upon by Hahn's method. One other case in which Frank's method was employed is not included, as the time of observation was too short. The Hahn method did not seem to work very well, the fistula being incontinent. In the rest the fistula leaked in three (including the Hahn case), was satisfactorily tight in three, and in the others "varied" in its behavior. There was one death from operation in the entire series, occurring from exhaustion in 13 hours, and, together with the other early deaths, is to be ascribed to the weak state of the patient at the time. Two lived 6 days, one 9 days, three 18 to 20 days, two 33 to 35 days, one left the hospital at the end of six weeks, and the other two survived for four and six months. These rather discouraging results are to be charged to the lateness of the time when the patients submitted to operation, it being necessary to open the stomach before all digestive power is suspended if good results are to be hoped for.

The Effect of Shock Upon Bacterial Infection.—

GALEAZZI (*Gazz. degli Ospedali*, 1895, No. 108, p. 1125)

GALEAZZI has been experimenting upon animals in an endeavor to settle the question of the effect of shock upon the liability to septic infection. It has often been claimed that shock predisposes to sepsis; but this opinion evidently needs revision in the light of his results, and indeed it is odd that it could ever have been held, in view of the well-known facts in regard to the slowness of absorption in that condition. GALEAZZI's method of experiment was to perform a laparotomy and expose the intestines to cold until great shock was produced, then close the wound and infect the animal with a pure culture of anthrax, or bacillus coli communis, subcutaneously, while in the state of shock—a similar inoculation being also carried out in another animal, without operation. As soon as one of the animals died the other was killed and the blood, etc., studied bacteriologically. It was constantly found that in the normal animal the inoculated disease had progressed

in the usual manner, while in the other there was little invasion of the system. While we can partially explain this slowness of effect by the reduced circulation, there is another less evident element at work. It was found, for instance, that when an animal was in shock it failed to react at all to a dose of strychnia, which was fatal to a normal animal; but if the two were injected simultaneously, and at the moment of the first convulsion in the normal animal, the shocked animal was instantly killed and the medulla immediately removed, an emulsion made from that part of the nervous system produced typical strychnine poisoning in a frog, proving that the alkaloid had actually reached the medulla, in spite of the feeble circulation, but for some reason it had produced no effect. This is supposed to be due to the fact that the physiological interchange between the tissues and the blood was suspended so that the drug could not affect the cells of the medulla, although it was present in the blood of that part.

[It may be remarked, however, that these experiments upon shock do not exactly reproduce the clinical phenomena, on account of the severity of the symptoms, the animals generally dying from the shock, whereas, if a patient dies from shock, it is of little importance whether there is sepsis or not. What would be of great interest to determine is, whether a patient who has been suffering from shock is, when reaction has set in, less able to resist septic infection by germs which have been inoculated during the operation—a question which seems to be left unanswered.]

EYE AND EAR

In charge of WILLIAM OLIVER MOORE, M.D.

The Relative Importance of Labyrinthine and Ocular Defects in the Etiology of Vertigo.— (*Ann. d'Oculistique, Am. Ed.*, CXIV, No. 5).

BOYER says the purpose of his paper is to discuss briefly the commonly accepted cause of the majority of cases of vertigo met with in practice, and to draw a comparison between it and another cause, and finally to record a few cases of vertigo with the treatment employed for their relief. If the experiments on the semi-circular canals have proved anything, it is that the vertigos with which we are most familiar cannot be caused by labyrinthine irritation. Ten cases are reported, all of which had eye symptoms, and one only had disease of the ear. One case, aged 8 years, had vertigo and dizziness until loss of sight, when they disappeared; this patient had atrophy of the optic nerve. The ear case had, on examination, exophoria of 5 degrees, for which a tenotomy was done, giving entire relief to vertigo, and correcting the deviation, which continued for several years. Two subsequent operations were done on various muscles with complete relief. Another case, one of exophoria, was entirely relieved by tenotomy.

In conclusion, it will be of interest to remember that heretofore the prognosis in cases of vertigo has habitually been unfavorable.

Turbinal Hypertrophy in Relation to Deafness.—

JONES (*Med. Press and Circ.*, October 16, 1895)

The writer concludes that:

1. Turbinal hypertrophy must be regarded as a serious complication of deafness and the allied aural disorders; and where it precedes the aural symptoms, it may be justly looked upon as a principal cause.

2. In all cases in which hypertrophic change is discovered, active therapeutic measures, the galvanocautery, etc., should be adopted.

3. Deviation of the nasal septum, or growths from it, are rarely the cause of deafness unless they complicate turbinal hypertrophy.

4. Deviations producing occlusion of the nostril should be rectified.

5. Turbinotomy should be reserved for those cases where other treatment fails to give relief.

Breech-pin of Gun in Orbit; Removal; Recovery.—WENYON (*Brit. Med. Jour.*, 1876)

W. relates the case of a Chinese farmer, aged 31, who was injured by the bursting of a shot gun. After two months of treatment by a native physician, the reporter first saw the patient. A cicatrix was on the right side of the nose, and above this a sinus, the orifice of which involved the inner canthus of the right eye, and extended downward and inward a centimeter. The sight of the right eye was lost, but there was no protrusion and no loss of tissue except the cornea, which was granular. The sinus discharged a putrid pus, the patient having headache and dizziness. Probing showed a foreign body, about one inch posteriorly from the orifice of the sinus. An incision was made along the side of the nose to the nostril, thus laying open the right nasal cavity, then seizing the foreign body with forceps, a complete breech-pin of a Chinese gun was removed, with the following dimensions: 3 in. in length, weight 2½ oz., or 75.6 gme. In 10 days the wound was perfectly healed. A similar case, which terminated fatally, is recorded in the *Am. Jour. of Medical Sciences*, July, 1882.

DERMATOLOGY AND SYPHILIS

In charge of HENRY W. STELWAGON, M.D.

Assisted by EMANUEL J. STOUT, M.D., and CHARLES N. DAVIS, M.D.

The Prevalence of Germ Dermatoses.—JAMES C. WHITE (*Boston Med. and Surg. Jour.*, Jan. 9, 1896)

This interesting paper is based upon a study of 3581 cases of skin diseases which presented themselves at the service of the Massachusetts General Hospital during the past year. In considering the subject the writer divides the germ dermatoses into two classes—the first, in which the affections are to be regarded as of positively parasitic nature; the second class, those which are probably caused by a vegetable parasite, the evidence of which is, however, not yet positively established. In the first class were to be found 1 case of red sweat, 35 of erysipelas, 59 of furunculosis, 91 cases of impetigo contagiosa, 18 of ecthyma, 96 of ringworm, 10 of favus, 31 of tinea versicolor, 1 of erythrasma, 1 of tinea imbricata, 22 of tuberculosis cutis (including so-called lupus and other scrofulodermata), and 2 of leprosy. The total was 366 cases, or rather more than 10 per cent. In the second category are mentioned syphilodermata, chancroids, some forms of alopecia areata, purpura, and mycosis fungoides. The aggregate of the two classes reached about 25 per cent. of all cases at the service. In this, moreover, are not included the diseases produced by animal parasites. The writer forcibly and very properly states that the importance of these facts should be recognized not only by professional boards of public health and school committees, but that some knowledge of them and the proper precautions

against contagion should be disseminated among the people at large. This analytical study also emphasizes the great importance of the bacteriological laboratory; its application in this all-important field of inquiry in cutaneous pathology cannot be over-estimated, and we may well believe that the results of such studies are to be as brilliant for the progress of the therapeutics of dermatology as they have already been in etiology.

Upon a Polymorphous Syphilide of the Tongue; Syphilitic Lymphangeiectasis.—CH. AUDRY (*Jour. des Malad. cut. et syph.*, 1895, VII, 652)

A woman who presented extensive and slightly exuberant lesions of the soft palate, the tonsils and the tongue, of which the edges were budding and split, quickly improved upon vigorous anti-syphilitic treatment. A few weeks later, however, she had, at the point where the tongue had been most deeply invaded, a tumor about the size of a hazel-nut, implanted upon a healthy mucous membrane. The tumor was red, smooth, covered with a thin mucous membrane; was irregularly rounded, very mobile, and hanging by a thin pedicle. By the microscope the growth showed a mass of embryonic tissue, very young, sprinkled with numerous lymphatics, and covered with the remains of a profoundly altered mucous membrane.

Syphilitic Myositis of the Sterno-Mastoid.—LOUIS BATUT (*Jour. des Malad. cut. et Syph.*, 1895, VII, p. 394)

The occurrence of gummata of the sterno-mastoid being rather infrequent, the author notes the following: Gummata attacking the muscles seem to favor the biceps and the sterno-mastoid and occur as one of the early manifestations of the tertiary stage of syphilis. They are most often found in patients who have had only slight treatment. The growth involves the muscle and surrounding tissue, interfering, when in the sterno-mastoid, with the movements of the neck. The course is insidious without febrile reaction. In some cases the induration is extreme, almost cartilaginous, and in 1 case resulting in ossification of the parts. Softening, supuration, and ulceration may occur. Usually potassium iodide is effective as a cure. Two cases of gummata in late hereditary syphilis are recorded, while early hereditary syphilis shows the lesion more frequently.

Common Causes of Alopecia.—HENRI FOURNIER (*Jour. des Malad. cut. et syph.*, 1895, VII, p. 641)

The author believes that the scalp is washed too often and is frequently lacking in oil. Many races oil the hair, and this is beneficial. Some animals also, as, for example, birds, which possess neither sebaceous nor sebaceous glands, have a gland which secretes an oily substance which the animal rubs on the skin to protect the feathers from the action of water. The product of sebaceous glands is remarkably rich in fat, and possesses a notably small amount of water. The falling of a certain number of hairs is a physiological phenomenon. The author is of the opinion, however, that the application of oil to the scalp would be beneficial to most persons, and it is suggested that the rubbing into the scalp of a pomade or other fatty substance be made part of the daily toilet, the pomade to carry with it some antiseptic substance.

OBSTETRICS; GYNECOLOGY; PEDIATRICS

Department Editor

THOMAS S. SOUTHWORTH, M.D.

Collaborators

GEORGE G. WARD, Jr., M.D., GEORGE R. WHITE, M.D.,
EDWARD N. LIELL, M.D., WILLIAM B. NOYES, M.D.

Recovery After Rupture of the Uterus.—QUESNIER (*Centralt. f. Gyn.*, 1895, No. 51, p. 1341)

The relatively seldom recovery after rupture of the uterus justifies the publication of the following case:

The patient was 38 years old, IX-para; previous labors easy. After being in labor about six hours the pains suddenly stopped. The woman gave a cry, saying that something had torn inside of her, and fell back in a faint. When first seen, the patient was pulseless and suffering from profound shock. Upon inserting a hand into the uterus, the head was found presenting. On the left side was a rupture about 11 cm. long, through which a foot protruded into the abdominal cavity. The cord was pulseless.

The foot was drawn into the uterus, and delivery by version easily performed.

After extracting the placenta the uterus was not tamponed, but a five-pound sand-bag was placed on the abdomen and held in place by a binder. Fourteen days later the patient was able to leave her bed, and was seen and found to be in good health several months later.

The cause of the rupture is not clear, as there was no disproportion between the pelvis and the child's head. The patient was in very poor physical condition, and on the day of labor had lifted some heavy sacks of potatoes from a wagon. These things may be mentioned as possible predisposing causes.

This case illustrates what FRITSCH has recently asserted, that in those cases in which hemorrhage is slight and the pulse returns, the best treatment is absolute rest and the administration of opium

Infectious Vulvo-vaginitis in Children.—ARISTIDES AGRAMONTE (*Med. Rec.*, 1896, No. 2, p. 46)

The superstition among the lower classes that sexual intercourse with a young female child is a cure for gonorrhea is probably the cause of much vulvo-vaginitis in children. The friction and traumatism may cause the inflammation around the genitals of the child and a severe vulvo-vaginitis, even when the man seems to present a perfectly healthy organ. The next most frequent cause is the presence of worms—oxyuris, or even lumbricoides—or the introduction of foreign bodies or dirt behind the hymen, often accumulated by children of the poorer classes who creep along the ground in the summer without proper covering for the parts.

In children suffering with enuresis the clothing saturated with decomposing urine may cause a vulvo-vaginitis. After various eruptive fevers it may occur.

Adherence of the nymphæ to the glans clitoridis with retained smegma may sometimes be a cause. The gonococcus of Neisser has been found with other diplococci. A pronounced pyorrhea, consisting of desquamating epithelium and pus cells, and various common bacteria, with abundant mucus, is always present. There is always redness and more or less foul-smelling discharge. There may be excoriations or stretching or tearing of the hymen, if due to coitus or masturbation.

Part of the vaginal canal and the urethra near the meatus may be involved, with resulting pain on micturition and slight constitutional symptoms.

No internal treatment, except to alkalinize the urine is indicated, and only a mild diuretic, like citrate of potash, for that purpose.

General constitutional treatment is necessary. Enuresis should be stopped, if possible, and adhesion of the nymphæ and clitoris broken up.

Local treatment by free use of solutions of permanganate of zinc or potassium (1-3000) are advisable, but only to the vaginal canal and external parts. The mother should be taught to use a soft rubber tube attached to a fountain syringe, at a low pressure, and insert it gently into the vagina. If the bladder is affected the physician should make the injections himself.

Practical Experiences with Antitoxin.—JAMES L. KORTRIGHT (*Brooklyn Med. Journ.*, X, No. II, p. 87)

In the first quarter of 1890 the diphtheria mortality in New York was 27 per cent., in Brooklyn 40 per cent. In the first quarter of 1895 the mortality in New York was 18 per cent., in Brooklyn 24 per cent., the change being credited to the use of antitoxin.

The quantity of antitoxin injected is so large that only four parts of the body have skin loose enough to receive it: beneath the nipple, the lateral aspect of the abdomen, the buttock, and the outer side of the thigh, and between the shoulders in the middle of the back. The first is too sensitive, the second has large veins crossing it. The interscapular region is the safest, though awkward to reach and painful to lie upon in bed after injection.

It is necessary to be very careful not to inject air, especially into veins, though if this occurs it may not produce any bad results. If the antitoxin is introduced directly into the circulation there is danger that the hemoglobin of the blood may be dissolved, producing a hemoglobinuria or thrombi in the blood-vessels from coherence of the corpuscles or coagulation of the plasma from the presence of the hemoglobin there.

Antitoxin is coagulated by all substances which coagulate serum albumin; for instance, alcohol, carbolic acid, bichloride of mercury, and a few other ordinary antiseptics. The presence of these substances in the syringe may produce small clots which may be injected into the tissues.

There are three different classes of disagreeable after-effects from antitoxin: eruptions on the skin, inflammation of the joints, and septicemia. These occur more readily if the Löffler bacilli have not been found before injection is made.

FISHER and BIGGS speak of varieties of eruption resembling scarlet fever, measles, erythema, urticaria, or purpura hemorrhagica. They are more liable to follow the injection of large quantities of antitoxin, and appear in about one-sixth of the cases treated; they disappear in two days. Inflammation of the joints is more infrequent and more troublesome. Suppuration does not seem to occur, and the condition resembles rheumatism. A true septicemia may occur, but may be a complication of diphtheria rather than be due to the antitoxin. Antitoxin exercises no influence in any way over streptococcus infection occurring in the course of diphtheria. To guard against accidental impurity of the preparation about to be injected, it is

advisable to inject a portion into some animal as a precaution and a test of strength.

[This suggestion can only apply to laboratories where the serum is produced or where considerable quantities are secured at a time for private use. Ordinarily too much time would be required for animal experimentation, and more danger of contamination would result from opening the package and the withdrawal of a portion. If there is any reason for suspecting the serum, discard the particular sample altogether. It is imperative that the usual small bottle shall not be opened except for immediate use.—ED.]

An Antiseptic and Depletory Vaginal Tablet.—

W. H. WALLING (*Med. Surg. Reporter*, 1896, LXXIV, No. 2, p. 37)

The writer has been experimenting for some time with various substances in order to obtain a satisfactory vaginal tablet for local use in leucorrhea, inflammations, hyperesthesia, or any other condition requiring an antiseptic astringent and depletory for the vaginal tract. He has finally evolved the following formula:

Acetanilid	5 grn.
Powdered Extract of White-oak Bark	½ grn.
Powdered Extract of Hyoscyamus	¼ grn.
Sugar of Milk	10 grs.

Mix and make one tablet.

Cover with vaselin, and insert into the vagina every other night.

Hysterectomy for Puerperal Septicemia.—W.

E. ASHTON (*Med. Bull.*, XVIII, No. I, p. 6)

In a paper read at the last meeting of the Amer. Gyn. Soc., the author confines himself more especially to the consideration of the pathologic conditions indicating hysterectomy appertaining to the subject as above. These are grouped under four headings:

1. Suppurative inflammations of the uterus.
2. Tubal and ovarian abscesses.
3. Abscesses of the broad ligament.
4. Rupture of the uterus.

The author has never met with a case of the first group, unless complicated by pus accumulation either in the uterine appendages or in the connective tissue of the pelvis.

The author is of the opinion that it is impossible by any method of examination known at the present time to settle the question in a given case whether or not the parenchyma of the uterus is the seat of septic infection, but that curettage and subsequent irrigation should be immediately resorted to in all cases of septic endometritis, followed later on by hysterectomy if curettage be of no avail.

As to group (2), the indication for hysterectomy is on the same basis as that of group (1), as prior to the existence of a gross lesion we are only able to recognize that the infection is active without localizing its source.

Under group (3) the history of an interesting case is cited, the infection of the broad ligament being, in all probability, through the lymphatics, as the tube was normal.

Although rupture of the uterus may occur without producing any symptom which would lead the attending physician to suspect its presence, yet when it is met with during labor, and is recognized as such, hysterectomy should be performed at once.

Fulminating puerperal septicemia, coming on immediately following labor, might often be accounted for by an unsuspected rupture of the uterus to a greater or lesser degree; as in a case cited by the

writer, the necessity for making a digital examination of the interior of the uterus in all such cases is evident, and will be the means of arriving at a more definite diagnosis. There is no difficulty in making such examination, as the uterus is always more or less relaxed after it has become infected.

Kraurosis Vulvæ (Breisky) S. RÖNA (*L'Orvosi hetilap*, 1894, No. 13; Abstr. in *Monatsch. f. Geburt. u. Gyn.*, 1896, XI, No. 1, p. 44)

The case reported by the author was a widow, 49 years old. The inner surface of the labia, the vestibule, and the perineum were covered with a grayish-white epithelial layer. The nymphæ were atrophic, while the prepuce of the clitoris was hypertrophied and grown fast to the labia in two places. At the vestibule and the entrance to the vagina the mucous membrane was dry, stiff, brittle, and much contracted, like cicatricial tissue.

Eighteen years previously the patient had been infected with gonorrhea and syphilis; traces of the latter disease still remained. During the past six years she had been troubled with pruritus of the vulva due to nervous causes. There was a discharge from the vagina resembling vaselin in appearance, in which no gonococci could be found. The urine contained neither sugar nor albumin, and there was no cancer of the cervix.

RÖNA thinks it probable that kraurosis vulvæ has the same cause, or rests upon the same basis, as leukoplakia buccalis, described by SCHWIMMER.

An Original Operation for the Radical Relief of Uterine Flexions.—F. P. NOURSE (*Am. Jour. Obstets.*, 1896, No. 1, p. 60)

N. presents a new operation applicable to ante-flexions and retroflexions of the uterus without adhesions. The patient should first be placed under preliminary treatment for her endometritis, such as douches, iodine applications, tampons, etc., and, if necessary, be curetted. The *modus operandi* is as follows: The patient is placed in the dorsal position, with flexed thighs; a self-retaining speculum is introduced into the vagina, the anterior lip is threaded and the posterior seized with forceps. While using traction on the uterus the cervix is to be split transversely as near to the angle of flexion as possible. If necessary secure the bleeding points—usually the circular arteries. Next introduce a sound to the fundus, and with it gently convert the retroflexed uterus to the normal position. While this manipulation is being performed traction should be made on the anterior lip (in retroflexion), which will greatly facilitate the above procedure, and at the same time place it on the stretch, so that when the lips are properly secured the fundus will be prevented from dropping back. A double volsella forceps now grasps the cervix as a whole well forward to sustain this relation of the parts until the suturing is complete. The sound should remain *in situ* during the introduction of the sutures. The needle is made to puncture both lips at once, and the sutures should remain for two weeks. It will be found that the anterior lip will project slightly over the lower one, but in a few months this will all retract. Should it project excessively it may be amputated. This operation should not be done in any case where evidence of pus pockets exist in the surrounding structures. Tumors and badly displaced and adherent ovaries will debar it. The author reports three cases, all of which have been cured by this operation of severe retroflexions, and are all now in excellent health. Two illustrations are given.

SOCIETY MEETINGS

HOSPITAL GRADUATES' CLUB

February 27, 1896

C. H. KNIGHT, M.D., President

Periarthritis of the Shoulder.—Dr. R. W. AMIDON read a paper on this subject (see page 378).

Dr. ELLSWORTH ELIOT, JR.: The condition which Dr. AMIDON has described, together with its symptoms, is caused by various processes around the shoulder joint itself. These pathological conditions are rather difficult to differentiate, because, in the first place, of the intricate nature of the joint, together with the depth of its situation and the thickness of the overlying structures. So far as the different etiological factors are concerned, I have seen in a number of cases in the dissecting-room instances of infiltration, almost "canalization," of the tissue which surrounds the circumflex nerves and vessels as they wind around the neck of the humerus. This tissue was apparently composed of connecting tissue, and by its contraction could easily compress the nerve and its branches, and be responsible for the condition which Dr. AMIDON has described. In the second place, the bursæ which communicate with this joint may, by becoming distended with fluid, produce these same symptoms. Of all these the most likely is the bicipital bursa, which normally descends in the bicipital groove to a point an inch below the anatomical neck of the humerus. In rheumatic cases, and in autopsies upon rheumatic subjects, I have found this bursa to be very much thickened, enlarged, filled with serous fluid, and to extend at least three inches below the anatomical neck. In the movements of rotation of the arm this bursa would be mechanically compressed, and such compression would give rise to the characteristic symptoms of this condition. In the third place, we have to deal with the large spaces situated between the capsular ligament of this joint and the overlying structures, especially the deltoid muscle, which is occupied in part by the deltoid bursa, communicating above with the subacromial, but is occupied principally by cellular tissue. So far as this bursa is concerned, I recall a case in the New York Hospital, in which a marked inflammation of this, as well as of the subacromial bursa, existed. This condition was found on operation to be a chronic tuberculous bursitis, and was unaccompanied by any symptoms of pain or limitation of movement. In acute inflammations of the bursa, however, these symptoms may very naturally be expected to be present. So far as the remaining portion of the space is concerned, the results of traumatism of the shoulder joint may very easily cause the extravasation of blood to a greater or less extent in the cellular tissue, and such extravasation may naturally be accompanied by the above symptoms. So far as the symptoms themselves are concerned, Dr. AMIDON has mentioned that abduction of the shoulder is very much limited and painful. I have found in addition to this that external rotation was also markedly limited and painful. Internal rotation, however, seems to be free. So far as treatment is concerned, my experience has corresponded with that of Dr. AMIDON, in treating these cases in the way in which he has indicated. In addition, however, I have found that the rheumatic or alkaline treatment for such condition has proved valuable. This alkaline treatment is administered

in those cases where hyperacidity of the urine or other symptoms would tend to show the presence of a rheumatic factor in the cause of this condition.

NEW YORK ACADEMY OF MEDICINE

General Meeting March 5, 1896

JOSEPH D. BRYANT, M.D., President

Pneumonia as a Complication of Diphtheria in Children.—Dr. HENRY W. BERG: By far the largest number of deaths in hospital from diphtheria has been due to pneumonia, and in this way the brilliant results of the antitoxin treatment of diphtheria have been materially diminished. Dr. J. W. BRANNAN found that out of 124 deaths, 66 were due to broncho-pneumonia, or that more than 54 per cent. were due to broncho-pneumonia. In private practice, this complication is primarily or secondarily the cause of death in a very large proportion of fatal cases, and is also present in a considerable number of those that recover.

Pneumonia may occur as a complication of any stage of diphtheria. It is a curious fact that in 1895 cases that died of broncho-pneumonia in the Willard Parker Hospital had been under hospital care, on an average, 13.7 days; while in 1894, in the same hospital, the average was two days of hospital care, which would seem to show that the antitoxin treatment had enabled even the most virulent cases of diphtheria to resist the pneumonia complication for a longer period. Experience has taught that a pneumonia may complicate a case of diphtheria as long as there are Löffler bacilli present in the throat. In diphtheria of the larynx, the diphtheritic process can spread by direct continuity, and minute pieces of membrane may be drawn into the farthest ramifications of the bronchi, and so give rise to broncho-pneumonia, there being no membrane in the intervening air passages. Another etiological factor in the production of this complicating pneumonia, in cases of diphtheria, is the infection with germs, chiefly streptococci. The virus of such an infection reaches the lung partly by aspiration, and partly through the lymphatics. I have observed in private practice that, when several cases of measles occur in the same family at the same time, they often do very badly, especially if in the same room, pneumonia frequently developing. No element is so fruitful in disseminating infection as insufficient air space. It has been found that, in a ward having a ceiling fourteen feet high, 110 to 120 square feet of air space should be allowed each patient.

The pulmonary complications of diphtheria may be divided into four varieties: (1) Congestion of the lung; (2) broncho-pneumonia; (3) lobar pneumonia, and (4) gangrene of the lung. Broncho-pneumonia is most frequently found as a complication of diphtheria in children—indeed, some authorities doubt if any other form of pneumonia occurs in these young subjects. The autopsies at the Willard Parker Hospital during the past year do not show any lobar pneumonias complicating diphtheria, but I am sure I have met with cases presenting the most distinct clinical evidence of lobar pneumonia. In cases of gangrene of the lung, in addition to the usual signs and symptoms of broncho-pneumonia, there is an exceedingly fetid odor. This complication may be the result of large infarctions in the lung, which are sometimes found in diphtheria.

The differentiation of these four varieties is important from a prognostic standpoint. Pneumonias complicating true diphtheria are found to be the result, as I have said, of a mixed infection rather

than of the Löffler bacillus. Recent experimentation and observation justify the conclusions: (1) That streptococci and Löffler bacilli, with or without other cocci, are the bacteriological cause of the pneumonia complicating diphtheria; and (2) that mixed infection not only causes this and other complications, but increases markedly the virulence of the diphtheria bacillus.

It is well known that severe and even fatal cases of diphtheria, especially diphtheritic laryngitis, run their course without marked rise of temperature. A complicating pneumonia, however, is ushered in by a sudden and marked rise of temperature, and hence when such a rise of temperature is observed, if there is no complication in the kidneys, we may strongly suspect pneumonia even before the physical signs of this condition are distinct. The two most important symptoms are the rise of temperature and the unusual rapidity of respiration. Of the physical signs, those showing the presence of a local capillary bronchitis are of special importance; and particularly is this the case when they are situated in the lower portion of the lungs. When the pneumonia begins in the deeper portions, the physical signs will often not appear until the stage of resolution has been reached. An absolutely pathognomonic sign of pneumonia is the fine crepitant râle heard on deep inspiration over the affected lung, or when the child cries. In cases of disseminated broncho-pneumonia it will be especially difficult to elicit the classical physical signs of broncho-pneumonia on account of the surrounding areas of normal lung tissue.

It is important to distinguish between those cases in which the pneumonia is the result of direct extension of the diphtheritic process, and where there is an interval in which the air passages are not so affected. The course of the disease downward by direct extension can usually be followed by the physical signs produced, and when this form of pneumonia is present the prognosis is extremely bad. Isolated patches of broncho-pneumonia, even when of considerable size, provided the large bronchi are not the seat of diphtheria, usually give a much better prognosis than the broncho-pneumonia just described. Septic or gangrenous pneumonia is, of course, absolutely fatal. The prognosis depends upon the virulence of the diphtheria, the stage of the disease, and whether or not the case has been operated upon.

As the disease is due primarily to bacterial infection, it follows that such cases should be isolated from other children having diphtheria; indeed, it may be said that all cases of pneumonia should be isolated from healthy persons. It is probably because of the contagious element of broncho-pneumonia that this complication is so exceedingly common in diphtheria hospitals. It is, of course, essential that the room should be well ventilated. The temperature of the room should be kept at 70° F. Cases which have been intubated, and particularly those which have been tracheotomized, are to be especially guarded against contact with cases suffering from broncho-pneumonia. In intubated cases it is further necessary that great care be taken that in feeding particles of food are not allowed to gain entrance to the air passages, thus producing *Schluckpneumonie*. The germicidal treatment of broncho-pneumonia is impracticable, but inhalations of oxygen are useful. Antipyretic drugs should be avoided; the cold-pack is by far the best antipyretic agent, for it not only reduces the temperature, but stimulates the patient. In the early stages, when the temperature is not very high, I direct that ice-

cold compresses shall be applied to the chest every hour. Poultices should never be used. There are many constitutional remedies advised. Among the more important of these are the well-known cardiac stimulants and diphtheria antitoxin. Cases of broncho-pneumonia complicating diphtheria should receive extra doses of antitoxin. A new remedy is the anti-streptococcus serum. The best work in this line has been done by Dr. ALEXANDER MARMOREK, of the Institute of Pasteur. Enormously virulent streptococcus cultures are used to immunize an animal like the horse, which is not particularly sensitive to the streptococci. The human being is sensitive to streptococci. A streptococcus antitoxin has not been obtained, but it has been shown that the anti-streptococcus serum has some antitoxic properties. Ten c.c. of the serum, as now prepared, have been found to be a sufficient dose. While diphtheria antitoxin is used to cure an ordinary existing diphtheria, an anti-streptococcus serum will find its chief use in preventing such complications of diphtheria as broncho-pneumonia.

Dr. H. M. BIGGS: It seems to me important that we should have a clear conception of the nature of the pneumonic process, and its relation to micro-organisms. It is pretty well understood now that pneumonia is always an infectious process. With the exception of the lobar pneumonias, which may be a specific infection due to the pneumococcus of Fraenkel, the other types of pneumonia are not specific infections, and may be due to a number of different micro-organisms. Almost invariably where the Löffler bacillus is present, streptococci or staphylococci and staphylococci will be found. There are also broncho-pneumonias due to infection through foreign bodies, to the influenza bacillus, and to various other micro-organisms. In none of these latter cases, I believe, does the organism *per se* produce pneumonia unless there is a pre-existing something which has depressed the vital resistance. The depressing influence of diphtheria and the diphtheria toxin explain the frequency of pneumonia as a complication of diphtheria. The tendency of the inflammation to extend into the bronchi, and the greater liability of streptococci and other organisms being drawn into the lower air passages furnish additional reasons for the occurrence of pneumonia. The reason that broncho-pneumonia is so much more frequent in hospital than in private practice, I believe, is that that factor known as "hospitalism" acts as a powerful depressant. I believe, however, that infection in hospital is a matter of no little importance. While streptococci are generally present in the secretions of the mouth and throat, they are often present in diphtheria without any evidence of their action. It should not be forgotten that there is a great difference in the virulence of streptococci, and that their virulence is increased by passing through human beings. In hospitals where there is not proper ventilation, and especial care taken that the discharges are disinfected, I think that isolation of pneumonic cases is desirable, although it is by no means essential under proper conditions. I have seen these septic pneumonias in other hospitals than the Willard Parker Hospital, where there seemed to be no question that the infection played a prominent part in producing these septic pneumonias. I think, unquestionably, infections also occur in the wards of hospitals as a result of pneumococcus infection.

I entirely agree with the reader of the paper regarding all that he has said about the treatment, and particularly in regard to the effects of antiseptic inhalations. It is extremely common to find private cases treated in rooms in which the atmosphere is

surcharged with moisture and various antiseptics. I believe that such treatment is not only useless, but is actually harmful. Anything which will in any way depress the vital resistance is to that extent harmful. The application of cold in some form seems to me the only routine method to be recommended for the treatment of high temperatures. According to my experience there is no contra-indication to the use of cold in pyrexia, excepting collapse. I formerly felt that acute nephritis was a contra indication to the use of cold; but I no longer hold this view, for I have seen most excellent results follow the judicious application of cold in scarlatina with acute nephritis. Poultices are an abomination in pneumonia, and are never to be used except for the relief of the pain where there is an acute dry pleuritis. In children with pneumonia I think poultices should never be employed. It is much better in adults to use "ice poultices"—shaved ice mixed with sawdust and stitched up in cheesecloth. As antitoxin counteracts the poison of diphtheria, it to that extent increases the patient's powers of resistance. A satisfactory anti-streptococcus serum would give us an ideal method of treating mixed infections.

Dr. W. H. PARK: The next to the last autopsy performed at the Willard Parker Hospital is instructive. A child, after apparently convalescing from laryngeal diphtheria, suddenly developed a pneumonia and a cellulitis of the neck. The cultures from the lungs at autopsy showed staphylococci and streptococci and diphtheria bacilli in all the organs. The last autopsy was in a case of laryngeal diphtheria, dying two days after intubation. The temperature rose steadily from the time of admission, and reached 107° F. at death. Examination at autopsy showed almost a pure culture of the pneumococcus, and a fatal septicemia was due to this organism. Certainly it would be safer to isolate the cases of broncho-pneumonia, but I have not been able to convince myself that the pneumonia developed in the hospital is a result of infection of one patient by another. In every case of laryngeal diphtheria there are streptococci mixed with diphtheria bacilli. We have never been able to find streptococci in cultures taken from various parts of the wards of the hospital. I think that many of these cases are really pneumonias complicated with diphtheria, rather than diphtheria complicated with pneumonia. Streptococci and staphylococci on the pharynx and tonsils rarely produce a fatal result, but the same cannot be said when these germs are found in the lower air passages. I do not feel at all sure how great will be the results obtained from the anti-streptococcus serum, although I do not doubt it will prove very useful within certain limits. For the last two years the temperature in the hospital has been kept at 80° F. on the ground, I believe, that diphtheria is less fatal in summer. This brings in an important disturbing element, because it is impossible to as effectually ventilate the hospital under these circumstances. During the past five weeks the temperature has been reduced to 70° F., and I think already it is evident that there is less pneumonia. In November, 1894, before the antitoxin treatment, when the temperature of the wards was 80°, there were 9 cases intubated, all of which died, and all had broncho-pneumonia. The same may be said for December. In February of last year, with antitoxin, there were 14 cases, 4 of which died within four days. Of the remaining 10, 4 died, 4 recovered, and 2 were transferred on account of complicating contagious diseases. In the summer the statistics were better, both with and without

antitoxin. In February of the present year, there were 9 cases intubated, of which 4 recovered, 1 died, 1 was transferred, and 3 remain in the hospital with pneumonia.

One of the visiting physicians of the Willard Parker Hospital, Dr. WINTERS, claims that the antitoxin treatment is responsible for the frequent occurrence of these pneumonias. But they cannot be due to antitoxin in the same way that they are due to germs, for the antitoxin is germ free. It could only happen by a great lowering of the vital resistance. The percentage of pneumonias I have shown to be less under the antitoxin treatment. During this February, under the antitoxin treatment, there have been only 3 cases of broncho-pneumonia in 9 intubated cases; and these 3 cases have had high temperatures from the very beginning, from which it is probable that they had pneumonia at the time of their admission. It is, of course, difficult to diagnosticate a pneumonia at the outset in these cases of laryngeal stenosis. Outside of the hospital it is well known that we see scarcely any of these so-called septic pneumonias.

Dr. J. W. BRANNAN: I have listened with much interest to Dr. BERG's carefully prepared paper, especially as it is largely based on a series of hospital cases with which I am myself familiar. In the last two years in the Willard Parker Hospital broncho-pneumonia has absorbed our attention, particularly during the past year. It was probably with us before, but more complete records and more frequent autopsies have brought out the fact more conspicuously. We have found that the pneumonias developed at a later stage, and we were inclined to infer from this that there was a difference in the disease, or in the character of the cases. After studying the question for some time, I came to the conclusion that the reason we recognized so many pneumonias last year was that it had developed in the cases which had been saved by the use of antitoxin, and were apparently convalescent. In the preceding year sepsis was found to have been responsible for about 30 per cent. and laryngeal stenosis for 30 per cent. of the mortality, whereas during the past year sepsis and laryngeal stenosis together produced only about 25 per cent. of the mortality; in other words, broncho-pneumonia developed in a large number of cases which in former times would have died of sepsis or laryngeal stenosis shortly after their entrance into the hospital. After studying these conditions, we have at the hospital adopted three measures, which I think should be credited with the improvement in our results since January 1 of the present year. These are: (1) Providing more floor space for each patient; (2) lowering the temperature of the wards; and (3) elevation of the foot of the bed to facilitate the drainage of fluids away from the air passages. Formerly, in this hospital, especially in time of epidemic, there was not more than half of the floor space per patient that is allowed in general hospitals which do not treat infectious diseases. I was led to suggest the elevation of the foot of the bed from reading an article by Dr. WILLIAM WOTKINS SEYMOUR, of Troy, who advocated this method in all cases in which there had been operations on the throat; the idea being that the secretions of the throat would then be prevented from draining down into the lungs. I do not think this is an altogether new suggestion, but I believe it has not been put into systematic practice before. Dr. SEYMOUR is in the habit of elevating the foot of the bed 16 inches. We have elevated it 10 inches, and have not found it difficult to manage the children under these circumstances.

As to the matter of treatment, I do not feel like urging anything except baths for the reduction of temperature. A tepid bath (90° F.) is often advantageous, and this can be followed with benefit by warm wet packs, which stimulate deeper breathing. Feeble children are apt to lie too continuously on the back; they should, therefore, be placed upon the side from time to time, to lessen the tendency of the secretions to collect in the lower portions of the lungs.

Dr. W. P. NORTHRUP: When the present form of the intubation tube was first used, Dr. O'DWYER was afraid that Schluckpneumonie might result from feeding. To learn something upon this point, experiments were tried on children who were moribund. Lampblack was thoroughly mixed with milk, and the child allowed to freely drink it. In none of these cases was the lampblack or any particles of milk found below the level of the lower end of the tube. Freedom from inhaled particles was afterward verified in Leipzig in a series of autopsies after intubation.

There is good reason for saying that in children under two years pneumonia is anatomically a broncho-pneumonia, although it may be lobar in its distribution. From two to five years of age there will be infiltration of the bronchi, and a liberal filling of the alveoli with fibrin as well as cells; but in the pneumonia of children under two years the prevailing lesion will be an infiltration of the small bronchi and a filling of the alveoli with cells. In a child a few weeks old the bronchi occupy a large proportion of the lung space, and there is much loose connective tissue about them. Running from the root of the lung to the lower lobes in the child are very large bronchi, which are especially favorably situated to catch the drainage. For this reason I think that Dr. SEYMOUR's suggestion is a valuable one. Unfortunately, however, while I believe in it theoretically, I have found that the children are disposed to turn around and reverse the desired position. I wish to say one word for the much-abused poultice. The testimony of adults is so uniformly and emphatically in favor of the relief from hot poultice in pneumonia that I have not been able to overcome this household tradition. What I object to is not the poultice, but the continuance of the poultice till the skin is macerated. A few hours on, and then the poultice should be replaced with a hot, dry flannel cloth.

Dr. W. W. SEYMOUR, of Troy: When I began practice in Troy, diphtheria was and had been for many years endemic, and it was my ill-fortune to do several tracheotomies which proved fatal, and then later a number of intubations in which, while the croup was absolutely relieved, the patients died later from pneumonia. These pneumonias I at first ascribed to the specific local effect of the disease instead of to the inspiration of septic matters. However, I finally concluded that the condition was due to the inspiration of septic matters, and therefore hailed with joy Casselberry's method of inverting the patient for feeding as a means of surmounting the pneumonias. Still they continued, and then I concluded to keep the patients in a more or less inverted position for drainage. In this wise the septic discharges would gravitate into the mouth and not into the trachea and lungs.

The results attained justified my hopes, and now I keep not only my operated cases in the inverted position, but also all markedly septic cases as well. In my last 10 intubations, I have had 8 recoveries. In 3 of these cases only was antitoxin used, and 1 of cases was fatal. Both fatal cases occurred

in families where the necessary control of the patient was not exercised. My experience is drawn from private practice only, as I have no hospital connection. I am certain that drainage by inversion will greatly diminish the mortality from pneumonias, both in diphtheritic cases simple and operative, but also in all such operations as laryngectomy, excision of tongue, and extensive operations on mouth, upper air passages, and pharynx.

Dr. ANDREW H. SMITH: With reference to the treatment of these cases of broncho-pneumonia, I would say that in nearly all the mode of death is by exhaustion of the right ventricle from overwork in the attempt to force blood through the obstructed pulmonary circulation. The matter of ventilation has been already dwelt upon, and is of exceeding importance, because without proper ventilation the blood is imperfectly aerated, and such blood circulates with special difficulty through the lungs. In this way the work of the right ventricle is proportionately increased. We can influence this directly by inhalations of oxygen, and in no other disease have I seen such benefit as in the broncho-pneumonia of children. The only trouble is that ordinarily they are not begun early enough, and kept up with sufficient persistency. It will be found that after each inhalation, say 15 minutes in every hour, the heart shows that it acts more freely, and that the pulmonary circulation is temporarily relieved. I have repeatedly seen most marvelous results from this plan of treatment. Another important matter is the diversion of the blood into the arterial rather than into the venous circulation. This is done by the use of the vaso-dilators, such as nitroglycerin and the nitrites. I wish in this connection to protest most emphatically against the very common use of digitalis in these cases, as it contracts the peripheral circulation, and so crowds more blood into the veins. In my judgment, digitalis is responsible for an enormous sacrifice of life in obstructive diseases of the lungs.

Dr. ACHILLES ROSE: Three of the speakers to-night have spoken of the inhalation of oxygen. There is only as much oxygen absorbed by the blood as corresponds to that proportion of carbonic acid exhaled. A better means than inhalations of oxygen is inflation of the rectum by carbonic acid gas. This is carried to the lungs by the venous circulation, and in the alveoli the exchange of the two gases takes place. I have had some experience in treating whooping cough in this way. These carbonic-acid-gas inflations per rectum were first recommended by BERGERN for the treatment of consumption. As the treatment did not prove as satisfactory in phthisis as had been expected from the exaggerated claims made for it, the whole plan of treatment, which, in certain cases, is not without considerable merit, was abandoned.

Inherited Surgical Dilettantism.—In Paris a man recently appealed against a sentence of two years' imprisonment passed on him for cutting off children's ears. He would go up to a boy in a lonely place, and say to him, "What's the matter with your ear? It's bleeding; just let me see it." Then he would take hold of the ear, and with a razor which he had concealed in his coat sleeve, cut off as much of it as he could—in some cases the lobe only, in others the whole ear. On the appeal it was stated that his father and grandfather were employed in dissecting-rooms. On his behalf his counsel pleaded mania, and that he suffered from inherited surgical dilettantism. In the result, the tribunal added three years to the original sentence.

CORRESPONDENCE

PHILADELPHIA LETTER

(From the BULLETIN'S Special Correspondent)

A clinical meeting of the Philadelphia Chapter of the Alumni Association of the Jefferson Medical College, was held March 10, 1896, Dr. W. B. ATKINSON in the chair.

Dr. O. H. ALLIS opened the discussion on "Hip-joint Disease." He said it occurred in childhood, and came on so suddenly and insidiously that it was some time before it was recognized. There is no certain cure, and often the best that could be done was to send the child out with a stiff joint. SAYRE first thought that it was due to traumatism, but later in life he said it was due to tuberculosis. GROSS said it was always of strumous or tubercular origin. Dr. ALLIS divided it, for study, into three stages: first, where there was slight excess of synovia, and pain was absent or slight; second, where synovia became purulent, pain severe, and referred to the knee, with crying out at night, and later abscesses formed around the joint; third, where the bone was involved. In the second stage there was apparent lengthening due to effusion into the joint, and, as he thought, to the relaxation of the fascia lata and psoas muscle, and tilting of the pelvis. The apparent dislocation was due to erosion of head of the bone, thus giving it greater play. He does not treat the first stage by extension, but by rest in bed. He thought it best to cut down, open, and resect the joint in the second stage; but he was not bold enough for this, so he used extension and waited. Some of the cases recovered, with stiff joints, and the disease would recur. When applying splints, let the fixation be from the axilla to the foot. In the third stage resect the joint, removing all the dead bone of the femur and acetabulum, unless the case is doing well, when an operation is not necessary.

Dr. DE F. WILLARD said that with the advancement in pathology we knew by removal of the local foci we could prevent the disease from becoming general, and that by weakening and destroying the bacilli we could reduce the inflammatory area. He thought that cases of primary synovitis were rare, and that the treatment should be early, with perfect and absolute rest to the joint, when the disease may be aborted, and we may get a joint with motion. In some cases pain was absent. He could not condemn too strongly the diagnosis of rheumatism in this joint in children under ten years of age, as he had never seen a case, and thinks all should be considered hip-joint disease. In applying a splint it must get support from the thorax to fix the joint, and the splint should be made to fit a chair or wagon to allow the child to go into the open air. With regard to surgical interference, operate early, as when three inches or more of the femur is involved and removed the result will be poor.

Dr. J. M. BARTON showed pictures of cases in the open air with the extension kept up. He used for fixation an iron strip with tin strips riveted to it, and this was held to the patient with plaster-of-paris bandages, the iron strip extending from the axilla to the knee. The indications for resection were high temperature and retained pus.

Dr. MANN divided cases into two classes—abscess or no abscess. In the latter case, where pain is great and the leg is in malposition, put on light extension in that position and in four or five days we shall be able to get the normal position. In cases

with abscess, if the sac is not well filled, use extension; if it is well filled, open, wash out with peroxide, then bichloride, and finally with an emulsion of iodoform. Close the wound and try to get union by first intention. If, when the joint was opened, there was found to be dead bone, it should be removed and if necessary the joint resected. Amputation was the last resort, and is usually followed by death. Would Dr. ALLIS kindly speak of this in closing?

Dr. ALLIS said he had never amputated, but that Drs. GROSS and AGNEW had done so with success.

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A stated meeting of the County Medical Society was held March 11, 1896. Dr. J. C. WILSON was in the chair.

Dr. C. H. VEASEY reported a case of duboisine poisoning. The amount of drug used was 1 drop in each eye of a solution of 2 grn. to the oz. About two hours afterward the patient became excited, face flushed, head full, could hardly walk, and could not talk, and had slight delirium. The pulse was small and rapid, breathing shallow and about 28; pupils dilated. The pulse later became slow and compressible, breathing 14, with muttering delirium. In three hours she was able to go home. The solution of duboisine was examined chemically, and found to be normal. She only received $\frac{3}{4}$ grn. in the eyes, and could not have absorbed all of this.

Dr. HANSELL said he had used the drug constantly in patients under forty, and had not had any trouble lately. He found that the salt varied in strength and quality, and that the susceptibility of patients differed. He had seen in one case incontinence of urine.

Dr. DE SCHWEINITZ said he rarely used it, as he had had very disagreeable experiences with it. He used 2 grn. to the oz. In one case he had there was paraplegia.

Dr. SCHNEIDEMAN had seen a case and treated it with hypodermics of morphia.

Dr. DE SCHWEINITZ read notes: (a) "Concerning the Extraction of Unripe Cataract, with Cases"; (b) "Concerning the Repair of Lesions and Wounds at the Corneo-scleral Junction, with Cases."

(a) He used the combined method, as the iridectomy left a clear wound. The capsule was opened with T-flap, and he had avoided iritis in all but one case. He did not like the ripening operation. He did not irrigate the anterior chamber, as he thought it a dangerous proceeding. He reported 20 cases where he had extracted the unripe cataract; their ages were from twenty-seven to seventy-five years.

Dr. HANSELL thought cases with myopia and unripe cataracts were best operated on by the combined method. He spoke of a case he had that was only aged 27, but the lens was as hard as in a case when 70 years old.

Dr. SCHNEIDEMAN said he assisted Dr. JACKSON when he ripened the cataract and operated later, and the results were good.

(b) Dr. DE SCHWEINITZ treated wounds at the corneo-scleral junction, when small, with eserine and compression; but if large, with prolapsed iris, he removed the iris and sutured the wound with silk, using about four stitches. In all the cases the result was very good; the pupil was drawn to the injured side, and the scar was small; vision was from $\frac{1}{2}$ to $\frac{6}{10}$. In one of the cases, where the ulcer was due to gonorrheal ophthalmia, there was an inflammatory condition of all the large joints, beginning at knee, then ankle, elbow, etc.

Dr. HANSELL said he had not sutured these wounds, but had used transplantation of conjunctiva with fair results. He intended using sutures hereafter in very bad cases.

Dr. VEASEY said he could only testify to Dr. DE SCHWEINITZ's work, as he had assisted him and had been able to follow some of the cases.

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The bodies of JENNIE O'KANE and EVA CAMPBELL, two children dying at the Municipal Hospital, became mixed, and the O'KANE child, dying of diphtheria, was sent to West Elizabeth, near Pittsburg, where the body was exposed before burial. As a result, there are several cases of diphtheria. The parents have applied for permits to again open the coffins to identify the bodies.

CANADA LETTER

(From the BULLETIN'S Special Correspondent)

LONDON, Canada, March 9, 1896.

The London Medical Association held its regular monthly meeting March 9, Dr. MEEK, president, in the chair. Dr. CHAS. MOORE presented a case of "intracapsular fracture of the neck of the femur" in a boy 15 years of age. The patient was first seen by Dr. MOORE on December 24, 1895. He gave a history of three successive falls on the hip while skating on the ice at different times during the six weeks previous. But, although the hip caused him some pain, especially at night, he was not disabled until December 24, when, alighting on his heel in stepping from a street car, he fell to the ground, but with difficulty walked home half a block. Dr. MOORE found shortening of $1\frac{1}{2}$ in., crepitus, and eversion. He at first thought he had a case of hip-joint disease, and emphasized the liability to mistake this injury for that disease on account of its rarity in the young and the similarity of the symptoms. He quoted from the AMERICAN MEDICO-SURGICAL BULLETIN of December 15, 1895, an article by Dr. HUBBARD, giving notes of several cases of fracture of the neck of the femur in children. Dr. MOORE treated the case by extension and rest for six weeks. The patient was examined by those present. He is not yet allowed to use the limb, but goes about readily on crutches. There is shortening one inch, slight prominence of the trochanter, with some limitation of flexion and abduction.

Dr. WISHART met with one case of intracapsular in a boy 11 years of age. Dr. GRAHAM thought extension should have been continued longer than six weeks. Dr. FERGUSON was of opinion that the injury was one of impacted fracture prior to the accident in alighting from the street car, which accident converted it into a non-impacted fracture.

Dr. A. T. HOBBS, of the staff of the London Asylum for the Insane, read a paper on "Gynecology Among the Insane."* Operative treatment on the insane is a new experiment in Canada, and Dr. HOBBS, in this paper, gave the results obtained from a year's experience and observation in gynecological work on the insane in the London asylum. In discussing utero-ovarian disease in relation to insanity, he adduced, as a reason why these disorders produce mental alienation, the intimate connection of the brain with the uterus and its appendages through the great sympathetic system, and claimed that disturbances of the latter are reflected upon the former in pathological conditions, just as we know they are reflected in physiological conditions at puberty and maternity. He observed that the majority of insane

*This paper will appear in full in a subsequent issue of the BULLETIN.

women with pelvic lesions studiously avoid referring to any symptoms that would excite suspicion as to the presence of such disease. As authorities on the causation of insanity by pelvic diseases, he quoted REGIS, TUKE, SAVAGE, and CLOUSTON. He presented an analysis of 19 cases operated upon. Of these, 9 were operations on the uterus itself, and included curettage, divulsion, trachelorrhaphy, amputation of cervix for subinvolution, endometritis, laceration, cystics, and hypertrophied cervixes. These 9 were classified, according to mental state, as follows: 2 cases of acute mania, 2 of recurrent mania, 1 acute puerperal mania, and 4 cases of chronic mania. Physically, every one improved. Six (66 per cent.) were discharged as recovered physically and *mentally*, 2 of the remaining 3 are discharged on probation, and 1 still remains an inmate of the asylum.

Of the 10 remaining cases, the Alexander operation was performed in 2 cases for malposition of the uterus; one, a case of puerperal mania of 2 years' standing has improved, but not recovered mentally; the other, a case of acute mania, died of exhaustion of mania 6 months after the operation. Vaginal hysterectomy for procidentia uteri was performed in 2 cases; one, a case of chronic mania, was not improved mentally; the other, a case of acute mania, underwent complete physical and mental recovery. Freund's operation was done for the same condition in an aged patient with marked improvement in her general health—a case of acute senile mania. Ovarian cysts were removed in 2 cases: one, a chronic maniac, died on the twelfth day of double basic pneumonia; the other, a case of acute mania, was discharged completely recovered. Adherent tubes and ovaries were removed in one case of chronic mania with improvement in mental and bodily health. A case of celiotomy and removal of solid mesenteric tumor died on the fifth day from exhaustion. This was a case of acute mania. A case of chronic melancholia was operated on for hemorrhoids and lacerated perineum by the Allingham and Tait operations respectively, but no mental improvement followed.

Of the 19 cases 8 were discharged as recovered *mentally* and physically, and 2 are discharged on probation; one patient died on the twelfth day after operation of pneumonia during an epidemic of la grippe, and one on the fifth day after operation from exhaustion; a third died of starvation and exhaustion of mania six months after operation. Six out of the 19 are still inmates of the asylum; all of them improved physically, and two of them showed also marked mental improvement.

Dr. HOBBS modestly claimed that these results warranted the work undertaken, and afforded encouragement and inducement to its continuance.

Drs. HODGE, WISHART, MOORE, FERGUSON, KINGSMILL, and MEEK expressed general concurrence in the views expressed in the paper and approval of the work being done. All emphasized the point that the insane, no less than the sane, should receive the benefit of operative treatment for the relief of physical ailments, even though mental recovery might not always be afforded.

Dr. MOORE will present an interesting and rare case of somnolency at the next meeting—that of a man who has been known, while driving, to see a train approaching a crossing, and yet to be overcome with sleep before getting safely over the railway crossing. The association meets again on the second Monday in April.

Branches of the St. John's Ambulance Association have been instituted at Toronto, Montreal, and

London. The aim of the association is to educate its members in the proper manner to assist the injured in case of accident, and to intelligently treat sudden illness till the surgeon or physician arrives. The association has issued over 300,000 certificates. The Prince of Wales is Grand Prior, and the Princess Beatrice was one of the first who obtained a certificate from the order. There are over 300 centers established in Great Britain, the Continent of Europe, India, China, and Australia.

Dr. LAUGHLIN MCFARLANE died at Toronto on Saturday, February 29. While performing an operation in a case of frost bite a week previous at the General Hospital, he suffered a prick on the finger from a needle. A day or two later he showed symptoms of blood-poisoning, and his symptoms grew rapidly worse, until he died. Deceased was 54 years of age, and had been for 10 years a member of the Senate of Toronto University. He was professor of surgery at the University, and clinical lecturer at the General Hospital.

It was only six weeks ago, January 21, that another of Canada's most prominent physicians, Dr. FENWICK, of Kingston, came to his death under similar circumstances, and from the same cause—septicemia—contracted through a slight cut in the finger, made while operating on a child for septic peritonitis. Dr. FENWICK was professor of Obstetrics and Gynecology at the Royal College of Physicians and Surgeons, Kingston. He was but 44 years of age, an apt surgeon, and a valued contributor to serial medical literature. The medical profession in Canada has lost two of its most brilliant and devoted members in the death of Drs. MCFARLANE and FENWICK, and both in the prime of manhood succumbed under exceptionally sad circumstances to septicemia—a foe which they had long been fighting in behalf of suffering humanity.

BOOK REVIEWS

A Manual of Syphilis and the Venereal Diseases.

—By J. N. HYDE, M.D., and F. H. MONTGOMERY, M.D., of Chicago. Philadelphia: W. B. Saunders

This little book of some 600 pages will prove a useful one to the student and busy practitioner. It is very conservative, yet the authors have given us much of the best that modern thought and research have to offer, and a great deal of the newer work, which is only scattered through the innumerable journals, has been well sifted and presented in a simple, straightforward, and easily comprehended style.

Many old and familiar woodcuts, which have long done service in successive works of this kind, some of which are rather crude and hideous from an artistic point of view, and might easily have been improved upon, still adorn these pages, and we cannot get away from them. This is not, however, an expensive nor an elaborate work, and therefore we have no right, perhaps, to expect better.

The work is confined to syphilis, chancroid, and gonorrhea and its complications, with a short chapter on gonorrheal ophthalmia in the new-born and one on gonorrhea in women, which latter should be of real use in correcting the views ordinarily held—still held tenaciously by too large a proportion of the profession—as to the possibility of contracting a gonorrhea from a woman who has never had it herself, and that a woman is free from the disease because a superficial view of the genitals reveals nothing abnormal.

The authors shun the domain of genito-urinary surgery, and advise their readers that such cases belong only to the skilled surgeon. The ambitious genito-urinary surgeon must look elsewhere, then, for education on these points.

The chapters on syphilis take up nearly half the book, and present the best views held by the profession to-day, and are not stereotyped. It is refreshing not to be forever confronted with the terms "copper-colored" and "raw-ham tint," which were probably first made use of by some color-blind idiot with a taste for home-made terms.

The chapter on "Syphilis in Relation with the Family and Society" is short, clear, and concise, but the author makes a slight misuse of terms when he says "the law which demands a periodical examination of the female prostitute should also require a periodical examination of the male prostitute;" for, even should it be possible to catch this disorderly individual, he cannot correctly be dubbed a male prostitute, unless the author refers to another kind of individual.

After a short chapter on chancroid, the rest of the book deals practically with gonorrhea and its complications. The methods of staining and examining for gonococci are clear and easily comprehended. The advice in treatment is conservative in the extreme, but on the whole the safest for the beginner to go by until he has had sufficient experience, and knows what he wants to accomplish. The book, however, was written for the beginner or the general practitioner rather than for the specialist.

Pregnancy, Labor, and the Puerperal State.—

By EGBERT H. GRANDIN, M.D., Consulting Obstetric Surgeon to the New York Maternity Hospital, Consulting Gynecologist to the French Hospital, etc.; and GEORGE W. JARMAN, M.D., Obstetric Surgeon to the New York Maternity Hospital, Gynecologist to the Cancer Hospital, etc. Illustrated with 41 photographic plates. Pp. 261. —Phila.: The F. A. Davis Company; London: F. J. Rebman, 1895

This volume is intended to complete the work, "Obstetric Surgery," published a year ago by these authors. The evidence of long clinical experience, derived both in obstetrics and gynecology, specially fits the authors for their work, and no monograph of the many recently published is as concise in diction and abundant in obstetric facts as this manual of practical midwifery. Both the student and the practitioner will use with greater benefit a manual of this kind than the larger systems.

Part I treats of "Pregnancy," and consists of three chapters. Diagnosis, differential diagnosis, duration and the hygiene of pregnancy constitute the first chapters, the other two chapters being devoted to pathology of pregnancy and the diagnosis of the presentation and of the position of the fetus. The signs of pregnancy are considered under the headings of general and local, subjective and objective.

Amenorrhea and quickening are justly deemed as but presumptive evidences of pregnancy, and the point relative to the suppression of menstruation in connection with ectopic gestation is worthy of attention. We do not give as much importance to the bluish discoloration of the vagina as an early sign of pregnancy. The softening of the *whole* cervix rather than the infra-vaginal part only is to be noticed.

The differential diagnosis of pregnancy is considered in a section of much value, as is also the management of gestation.

The chapter on the pathology of pregnancy con-

tains sections of much interest on pernicious vomiting, cardiac and nephritic diseases, with rational therapeutics for the treatment of these complications.

In this chapter vicious insertion of the placenta is considered, and the treatment of placenta prævia, in which temporizing with the tampon and the use of ergot is condemned, is judiciously stated. Obstetric palpation and auscultation are well described, and with the necessity of their being more generally employed, make up the chapter on the diagnosis of the presentation and position of the fetus.

Part II consists of four chapters, which deal with mechanism of labor, the clinical course of labor, management of normal and abnormal labor, and the care of the new-born.

The illustrations in this part are very numerous, and are reproduced from photographs taken in the lying-in chamber. Any physician who follows the teachings here described for the management of his obstetric cases will be abreast of the times in his aseptic technique and will have a smaller number of cases with ruptured perineæ. The care of the new-born is described with numerous suggestions not found in other manuals.

Post-partum hemorrhage is well treated of, and, what is of more importance—the methods employed to prevent it.

Anæsthesia, if employed as here directed, is of distinct aid to the accoucheur in effecting protection against injury to the muscles and fascia of the genitals, and saving the woman the intense agony of the expulsive act. Part III consists of two chapters—the normal and the pathological puerperium. It is clearly the intentions of the authors to regard the prophylaxis essential to a normal puerperium as absolute cleanliness in the management of the patient, both by the physician, and more especially by the nurse. The subject of septic infection is dealt with in the last chapter, and the treatment, both medical and surgical, embodies the latest and most approved directions for successfully dealing with the early and late forms of puerperal sepsis.

BOOKS RECEIVED

Transactions of the American Climatological Association for the year 1895.—Volume XI, containing Part I of the Report of the Committee on Health Resorts and a general index of Volumes I–XI.—Pp. 266, with colored diagram. Philadelphia: Printed for the Association, 1895. Copies may be had of the secretary.

The Primary Factors of Evolution.—By E. D. COPE, Ph.D., member of the U. S. National Academy of Sciences; Professor of Zoölogy and Comparative Anatomy in the University of Pennsylvania.—Pp. 550, with 121 illustrations. Chicago: The Open Court Publishing Company; 1896. Price, cloth, \$2 net.

A Text-book upon the Pathogenic Bacteria.—By JOSEPH MCFARLAND, M.D., Demonstrator of Pathological Histology and Lecturer on Bacteriology in the Medical Department of the University of Pennsylvania, etc.—Pp. 360, with 113 illustrations. Philadelphia: W. B. Saunders, 1896. Price, cloth, \$2.50 net.

Vorlesungen über chirurgische Infektions-krankheiten.—By Prof. TH. KOCHER, Director of the Surgical Clinic of the University of Berne, and Prof. E. TAVEL, Director of the Bacteriological Institute

of the University of Berne.—Part I, pp. 224, with illustrations and 2 colored plates. Basil and Leipsic: Carl Sallmann, 1895. Price, paper, 8m. (\$2.00).

Résultats de l'Examen de Dix Mille Observations de Hernies.—By PAUL BERGER, Professor of the Surgical Clinic of the Faculty of Medicine, of Paris, etc. Extract from the Nineteenth French Congress of Surgery, 1895.—Pp. 206, with diagrams. Paris: Felix Alcan, 1896. Price, Paper, 4 fr. (75c).

Deaf Mutism: A Clinical and Pathological Study.—By JAMES KERR LOVE, M.D., Aural Surgeon to the Glasgow Royal Infirmary, etc. With chapters on the education and training of deaf mutes, by W. H. ADDISON, A.C.P., Principal of the Glasgow Deaf and Dumb Institution.—Pp. 370, with illustrations. Glasgow: James MacLehose & Sons. New York: Macmillan & Co., 1896. Price cloth, \$2.75.

Text-book of General Pathology and Pathological Anatomy.—By RICHARD THOMA, Professor of General Pathology and Pathological Anatomy in the University of Dorpat. Translated by ALEXANDER BRUCE, M.A., M.D., F.R.C.P.E., F.R.C.S.E.; Lecturer on Pathology, Surgeon's Hall, Edinburgh, etc.—Vol. I, pp. 624, with 436 illustrations and 4 colored plates. London: Adam and Charles Black. New York: Macmillan & Co., 1896. Price, cloth, \$7.

Don'ts for Consumptives; or, The Scientific Management of Pulmonary Tuberculosis.—By CHARLES WILSON INGRAHAM, M.D.—Pp. 218, with diagram. Binghamton, N. Y.: C. W. Ingraham, 1896.

Electricity in Electro-Therapeutics.—By EDWIN J. HOUSTON, Ph.D., and A. E. KENNELLY, Sc.D.—Pp. 402, with 128 illustrations. New York: The W. J. Johnston Company, 1896. Price, cloth, \$1.00.

Clinical Lectures on Abdominal Surgery and Other Subjects.—By CHARLES T. PARKES, A.M., M.D., late Professor of Surgery, Rush Medical College, etc. Edited by Dr. A. J. OCHSNER.—Pp. 478, with portrait. Chicago: The W. T. Keener Company, 1896.

Syphilis in the Middle Ages and in Modern Times.—By Dr. F. BURET, Paris, France. Translated from the French, with notes, by A. H. Ohmann-Dumesnil, M.D., Professor of Dermatology and Syphilology in the Marion Sims College of Medicine, etc. Being Volumes II and III of "Syphilis To-day and Among the Ancients," complete in three volumes. 12mo, 300 pages. Philadelphia: The F. A. Davis Co., 1895. Price, extra cloth, \$1.50 net.

EDITOR'S NOTES

Higher Preliminary Education.—Missouri University has signified its intention to raise the standard of educational requirements for admission to its professional departments, beginning with the medical school. And so the good work goes on.

Brains Wanted.—The Cornell Brain Association, of Boston, Mass., has sent out a letter of appeal to moral and educated persons to bequeath their brains to the institution for scientific study. In response it has already received eight brains, and has a promise of many others which are yet being used by their owners.

Damages for Death by Typhoid.—A suit was recently begun in the Wisconsin courts against the Ashland Water Company, in the amount of \$5000, for alleged negligence in permitting the water supply to become polluted with typhoid germs, causing

the death of the plaintiff's husband. If this species of criminal negligence were prosecuted in every case where facts warranted an action, Health Boards would exercise more care, and epidemics that place the public health in wanton jeopardy would eventually be reduced to a minimum.

Deaths from Anesthetics.—A committee of the German Surgical Society have investigated the deaths from anesthesia occurring during the last five years and have secured the following data: Chloroform was administered 201,224 times with 88 deaths, or in the ratio of 1 in 2286; ether, 42,141 times, with 7 deaths, or in the ratio of 1 to 6020; chloroform and ether, 10,162 times, with 1 death; chloroform, alcohol, and ether, 5744, with 1 death; ethyl bromide, 8967, with 2 deaths.

The Jenner Centenary.—The centenary of the decisive experiment of Dr. WILLIAM JENNER, which gave to the world the incalculable benefits of vaccination, will occur on May 14, 1896. In Russia preparations are being made on an extensive scale to commemorate this event. The celebrated collection of "Jenner Relics," collected by Fredrick Mockler, of Wotton-on-Edge, which were exhibited at the Bristol Exposition in 1893, will find a home in University College, Bristol, provided sufficient money can be raised by subscription to purchase them.

Happy and Healthy Brooklyn.—To the ladies of Brooklyn we owe lasting gratitude for their courage in beginning the crusade against promiscuous expectoration, which will soon be abated. They are not weary in well-doing. The Women's Health Protective Association of that city has won the first victory in its war upon the ash barrel. In compliance with its request, Commissioner WILLIS, of the Department of City Works, has ordered that the next contractor shall take the barrels from the areas of residences, shall have his carts covered, and shall remove ashes at night from designated streets.

A notice has been issued by Health Commissioner EMERY, of Brooklyn, to the authorities of places of worship where large bells are used, calling attention to Section 177 of the Sanitary Code, and adding: "All church authorities and all others having control over the ringing of large bells in neighborhoods that are thickly settled, are hereby requested to prevent bell-ringing before 7 a.m., and in localities where complaints by invalids are brought to their notice, to restrict the bell-ringing in the daytime to as few strokes as possible." Section 177, of the Sanitary Ordinance, runs as follows: "No large or church bell shall be rung or tolled at any funeral without a permit from the Board of Health; nor shall such bell be rung or tolled at any time to the prejudice or peril of life or health of any human being." An attempt to restrict New York church bells in like manner, in 1880 or 1881, failed, although certain physicians of note pushed the test case. *O Brooklyn, fortunata!*

Personal.—At a recent meeting of the Medical Staff of the Astoria Hospital, Long Island, Dr. NEIL O. FITCH, was chosen vice-president.

The Syracuse Academy of Medicine has elected Dr. EUGENE HAANEL, of the Department of Physics, to honorary fellowship of the Academy.

Dr. E. B. DELABARRE, Professor of Psychology, at Brown University, will succeed Dr. MUNSTERBERG

as director of the psychological laboratory at Harvard for the year 1896-97. He will continue his work at Brown University.

Dr. FRANK HOPKINS, resident physician of the Pottsville, Pa., Hospital, has resigned.

The retirement of Dr. AUGUSTUS McSHANE from the editorship of the *New Orleans Medical and Surgical Journal* is announced. Dr. CHARLES CHASSAIGNAC and Dr. ISADORE DYER will hereafter assume the editorial duties of the *Journal*.

California's Oldest Physician.—San Francisco has a physician 94 years of age, who has been in active practice 64 years.

Medical Department of the Cuban Army.—The medical staff of the Cuban army consists of 80 surgeons, with Dr. JOAQUIN CASTILLO DUANY, a graduate of one of our universities, as surgeon-general.

A Physician Sues.—Dr. T. A. STODDARD, of Pueblo, Col., has brought suit against that city for \$30,000 damages for injuries sustained in being thrown from his carriage, by reason of the city's negligence in leaving a hole in the street.

Public Baths.—The appropriation of \$20,000 which has been secured for the purpose of erecting and opening public baths has come none too soon, even if it will be found inadequate for the securing of that very desirable characteristic, cleanliness. We are thankful, however, for this mite, and we look upon this appropriation as simply the forerunner of a greater at next session of the legislature.

Women Health Officers in Denver.—Denver has two women health officers. The territory covered by these women in the discharge of their duties is extensive, and it has heretofore been the custom of the street railway to carry officers of the public departments free of charge; but a discrimination has been made, and orders issued which deny them the rights extended to men of the departments, and threatens to remove the privilege entirely.

Wisconsin State Medical Society.—The annual meeting of the Wisconsin State Medical Society, which will take place at Madison, June 3, marks the 50th mile-post in the history of the association. An appropriate celebration is being arranged. The official programme will be devoted to sanitary matters, including hygiene, ventilation, disinfection, drainage, prophylaxis, quarantine, etc., upon which subjects papers are requested.

A Most Retrograde Petition is now before the Lower Austrian Government. This petition pleads for the establishment of a medical school for "coppers," or peasant doctors.

The presence of these unskilled persons in Upper Austria and the Tyrol has made it practically impossible for medical men to find a living there.

The charge made by the peasant doctor is about three cents a visit, and he is infinitely preferred to the qualified physician by the country people, whose prejudices are difficult to surmount. It is said that no medical man has yet protested against the petition, which aims at placing the charlatan on a firm

basis in Austria. The author of the petition, which the Provincial Council of Upper Austria has put forward, is a lawyer and a graduate of the University of Vienna.

Congress of the British Medical Association.—The annual Congress of the British Medical Association will be held at Carlisle, July 28, 29, 30, and 31, 1896. Mr. HENRY BARNES will preside. The number of sections, which has been much too large in former sessions, will probably be reduced to nine.

St. Mary's New Summer Home.—St. Mary's Free Hospital for Children, at Thirty-fourth street and Ninth avenue, has received a gift of \$20,000, which has enabled it to purchase the ground for a new summer home at Norwalk, Conn. With a census of from 70 to 85 children the Hospital had outgrown its present summer quarters at Rockaway Beach, where the surroundings are rapidly becoming undesirable. Rock Farm, the new purchase, consists of 29 acres; and the new buildings will be completed by the summer of 1897.

Rochester Loses Dr. Hill.—Pres. DAVID J. HILL, of the University of Rochester, has advised the Board of Trustees of his final determination to sever his official connection with that institution at the close of the present collegiate year. The Chamber of Commerce recently started a subscription list to raise \$100,000 as a fund to aid the University in extending its educational facilities, and it is believed that Dr. HILL's withdrawal will precipitate whatever has been accomplished, and result in an abandonment of further effort in the matter. The subscriptions already secured were pledged with the express understanding that they should not stand unless the whole amount of \$100,000 is assured.

Pediatrics.—The semi-monthly journal, *Pediatrics*, which began its career the first of the year, is developing into a most lusty, scientifically formed youth. It is exceptional to find a journal showing such signs of unquestionable prosperity before it has cut its eye-teeth; and should it continue to thrive along the lines laid out for it, it will reach blooming womanhood before the expiration of many months and will have scores of ardent suitors at its feet. Even at the risk of uttering a hackneyed thought, the BULLETIN feels that it fills a long-desired sphere—so completely that its competitors along its special line must wake up in order not to be left far behind in the race for honor in medical journalism.

The Journal of Experimental Medicine.—The journal of experimental medicine, of which the first number has recently appeared, promises to fill a want long felt by American laboratory workers.

The journal is intended chiefly for studies in experimental pathology, physiology, and pharmacology, and in pathological anatomy and bacteriology. While purely clinical observations do not come within the domain of the journal, its pages will be open to the publication of investigations in which chemical, pathological, or bacteriological researches are combined with clinical study.

There is no fixed date of issue, but at least four numbers will appear during the year.

Dr. W. H. WELCH is the editor, and with him as associate editors are Drs. BOWDITCH, CHITTENDEN,

HOWELL, ADAMI, COUNCILMAN, PRUDDEN, ABEL, CUSHING, WOOD, FITZ, OSLER, and PEPPER. There are also a large number of collaborators who are leading representatives of their special departments in the United States and Canada.

A glance at the list of original investigators who have promised their active support to the new publication is sufficient to convince one of its success.

Expectoration Prohibited.—The Third-avenue cable cars are now adorned with a sign reading thus: "Passengers must not expectorate on the floor of this car. By order of the Board of Health."

Gynecological Congress.—The International Periodical Congress of Gynecology and Obstetrics will hold its second session at Geneva, in the first week of September of this year.

New Title for Dr. Billings.—The trustees of the Consolidated Library of the City of New York have changed the title of Dr. JOHN S. BILLINGS, U. S. A., retired, from "Superintendent-in chief of the Consolidated Libraries" to "Director of the Consolidated Libraries."

New Hospital for Children.—At a recent meeting of the directors of the United Presbyterian Women's Association of Pittsburg, it was decided to build a memorial hospital for children at a cost of between \$55,000 and \$60,000. The present structure is located at the corner of Roberts and Monterey streets.

Inquest on the Coroner.—The recent meeting of the Medico-Legal Society of New York afforded occasion for some interesting discussion in regard to the bill now pending to abolish the office of Coroner. On the whole, the majority indorsed the new bill, though the present system was defended warmly by Drs. WESTON and DONLIN, Coroner's physicians, as might have been expected.

Kentucky State Medical Society.—The approaching meeting of the Kentucky State Medical Society, which takes place at Lebanon, June 10, promises to be the banner meeting of the association. Many valuable papers, voluntary and selected, by the committee on questions, have been submitted, and its officers are sanguine of a most successful meeting.

Philadelphia Hospital Appointments.—Two positions on the medical staff of the Philadelphia Hospital made vacant by the resignations of Dr. J. N. ANDERS, professor at the Medico-Chirurgical College, and Dr. E. L. VANSANT, a graduate of Jefferson Medical College, are being eagerly sought after by Philadelphia physicians. A meeting of the officers of the Department of Charities and Correction for the purpose of determining upon the appointment of physicians to succeed these gentlemen will take place in a week or two.

The Morristown (N. J.) Memorial Hospital.—In the second annual report of the Morristown Memorial Hospital for the year ending December 1, 1895, it may be seen that the cost of maintaining the institution, including all expenses, averages about \$433 per month. Of this amount 25½ per cent. has been received from pay patients, and outside services of nurses, 35 per cent. from fairs and entertainments, and the remainder from subscriptions and

donations. The report of the physician-in-chief, Dr. P. C. BARKER, shows the number of patients treated: In the General Hospital, 65; in the Annex, or contagious wards, 31. Thus it appears that nearly one-third of the patients were treated for contagious diseases. As Morristown has no city hospital where contagious cases are received, the importance of the work of the Memorial Hospital readily becomes apparent.

St. Luke's Hospital.—The March 10th meeting of the Society of the Alumni of St. Luke's Hospital was the first gathering of the alumni at the new hospital on Morningside Heights. One ward was opened last week for the reception of patients. The Norrie wing was opened the 16th inst. It contains 150 beds, is lighted by electricity, and furnished throughout with all modern sanitary appliances.

A New Post-graduate School.—The District of Columbia is to have a post-graduate medical school. The bill authorizing its establishment passed both houses, and on the 7th inst. was signed by the President. The school will be allowed to hold personal property and realty to the amount of \$200,000.

Legal Worries for a Doctor.—A prominent physician of Terre Haute, Ind., is defendant in a suit for \$10,000 damages for permanent disability, resulting from alleged malpractice in a case of minor surgery, in which he failed to remove a splinter from the foot of his patient.

Caution to Midwives.—Dr. KEMPSTER, of the Health Department of Milwaukee, is investigating the system and obligations of its midwives, and has found that flagrant violations of the laws are being constantly practiced. New York might investigate to advantage in this direction!

A New Medical School for Women.—The Russian Government has assigned an annual grant of \$50,000 to the Medical School for Women in St. Petersburg. The city undertakes to provide \$12,000 in addition, and private munificence has raised an endowment fund of \$350,000. Preliminary courses are already being given.

The Consulting Medical Board of the Orphan Asylum of the Hebrew Sheltering Guardian Society was organized March 15, with CARL BECK, M.D., as president and WM. S. GOTTHEIL, M.D., as secretary. The other members of the Board are: Drs. H. S. OPPENHEIMER, GEO. H. FOX, WELCOME T. ALEXANDER, JOSEPH G. WALLACH, and H. T. BROOKS.

American Medical Association Meeting.—The approaching meeting of the association to be held at Atlanta, beginning May 5, promises to be of greater significance than any heretofore held. Numerous papers, covering almost the entire field of medicine, have been submitted, and topics bearing upon neurological and medico-legal matters having a special interest at this time will be ably and exhaustively discussed. The secretary of the association is Dr. W. B. ATKINSON, 1400 Pine street, Philadelphia.

Pennsylvania's Insane.—The annual report of the State Hospital for Insane at Harrisburg shows that there were 262 admissions during the past year and that the present number of inmates is 845. Owing to the failure of the legislature to appropriate

funds for the construction of new buildings, the inmates are compelled to occupy the present crowded and unsanitary quarters, which are barely fit for use. Dr. JANE KIMMEL GARVER, physician of the female department, accredits the unusual percentage of cases of phthisis that have developed during the past year to the sedentary habits of the majority, and surroundings which characterize their every-day existence in an atmosphere charged with organic exhalations.

New York Academy of Medicine Library.—The BULLETIN cheerfully publishes the following appeal from the New York Academy of Medicine, since the aims of the Academy are directly in line with public interest:

TO THE PUBLIC

The New York Academy of Medicine was organized on the 6th day of January, 1847, and its objects were declared to be the promotion of the character, honor, and interest of the medical profession, the elevation of the standard of medical education, the cultivation and advancement of the science of medicine, the promotion of public health, and the maintenance of a free public library.

By bequests, donations, and subscriptions a property has been purchased, and a commodious building has been erected, which, including the library, is now valued at \$246,492. During the last twenty years the efforts put forth by the Academy to collect and maintain a free medical library, for the use of the profession and the public at large, have been more earnest and persistent than ever. This library, which at the present time contains 45,000 volumes, was obtained by gifts, bequests, and purchases, and during the year 1895 was consulted by 6574 readers. Three library funds, by gifts and bequests, have already been instituted, and invested on bond and mortgage, aggregating in amount \$21,900, the interest of which can only be used for the increase of the library.

How well the medical profession, as represented by the New York Academy of Medicine, has in other respects fulfilled the promises of the founders of the institution is witnessed also by the success that has attended its efforts in behalf of the public welfare.

The New York Academy of Medicine has, while devoting itself to the study and evolution of medicine, earnestly, persistently, and successfully exerted itself to promote the public health, by affording information and aid on important sanitary subjects connected with the public streets and water-supply of the city; by the combating of the malign influences of infectious diseases, in the city and country at large by co-operation with the Health Department of the city, and the medical bodies in other States of the Union.

In the recent cholera invasion of this country, a committee of the Academy labored long and untiringly in all the ways at its command, both in the city and at Quarantine, under adverse circumstances, and at a great personal loss, to prevent the entry into the city and country of this terrible destroyer of human life and human prosperity.

That the medical profession is engaged in ceaseless and gratuitous labor in behalf of the stricken poor, and has never been niggard in its financial or physical contributions to their benefit, cannot be gainsaid. The continued and proper "elevation of the standard of medical education" and the "Cultivation and Advancement of the Science of Medicine" make unceasing and vigorous demands on our resources. The sum already at hand is not sufficient to meet the wants and to supply the demands of the readers of the library; and therefore the Academy, at a stated meeting, held in February, 1896, appointed a committee for the purpose of soliciting contributions to increase the library fund to the sum of \$100,000. The interest of this fund is to be used for the purchase of new medical publications and books, in order to maintain the library at a standard commensurate with the needs of the medical profession and the public, and consistent with the dignity of the metropolitan city of this country.

Believing that the wise and humane acts of the medical profession, as represented in the Academy of Medicine, have already justified the pledges of the founders of that institution, we now invite a further expression of confidence in our fidelity and appeal to all who appreciate the importance of the undertaking to aid the committee in its efforts to increase and to perpetuate the good work of the New York Academy of Medicine and its free public library.

Honorary Committee: Hon. Roswell P. Flower, Hon. Abram S. Hewitt, Mr. D. Willis James, General E. A. McAlpin, Mr. James Stillman.

Committee of the New York Academy of Medicine: Samuel Alexander, F. H. Bosworth, Clement C. Cleveland, H. Holbrook Curtis, William H. Draper, Egbert H. Grandin, Landon Carter Gray, Everett Herrick, A. Jacobi, Arthur M. Jacobus, Edward G. Janeway, Francis P. Kinnicutt, Herman Knapp, Henry P. Loomis, Paul F. Munde, William M. Polk, Samuel S. Purple, William R. Pryor, A. A. Smith, M. Allen Starr, Daniel M. Stimson, Robert F. Weir, J. Blake White, W. Gill Wylie.

Officers: Joseph D. Bryant, chairman; Reginald H. Sayre, secretary; William Floyd Cushman, treasurer, 325 West Twenty-second street.

Navy Items.—Medical Inspector J. B. Parker was ordered to duty in charge of Naval Hospital, Widow's Island, Me., in addition to present duties.

Surgeon Thomas Owens was placed on the retired list March 10.

Surgeon W. R. DuBose was detached from the Naval Academy and ordered to the "Terror."

Obituary.—Dr. A. V. SMALL died at his home in Sedalia, Mo., on the 10th inst., aged 75 years. Dr. SMALL was a surgeon in the army during the Crimean War, and Medical Director of the Southern Confederacy during the Civil War.

Dr. F. M. SHEPARD, of Denver, Col., died March 8. He was graduated from the Medical Department University of New York in 1881, and moved to Denver.

Dr. DORRANCE KIRTLAND MANDEVILLE died in Brooklyn on the 9th inst. He studied at the College of Physicians and Surgeons, was graduated from the Albany Medical College, and at the time of his death was a staff physician of the Brooklyn Maternity Hospital.

Dr. CHARLES F. MEREDITH, 88 years of age, died at Quakertown, Pa., March 1.

Dr. NATHAN O. HARRIS, one of Atlanta's leading physicians, died March 6.

Dr. THOMAS ALLEN CLOUD, of Kennett Square, Pa., died March 5. He was graduated at the University of Pennsylvania, and was 55 years of age.

Dr. H. H. LITTLE, one of Ohio's wealthiest physicians, died at his home in Cleveland on the 9th inst.

Dr. WILLIAM P. PALMER, an accomplished *littérateur* and historian, died in Richmond, Va., March 3. He was graduated in medicine from the University of Pennsylvania about 1844, and finished his medical training at a hospital in Baltimore, Md. He was 74 years of age.

Dr. GEORGE BADGER COGSWELL died at his home in North Easton, Mass., March 6. He was graduated at Dartmouth Medical College in 1857, and was 61 years of age at his death.

Dr. J. S. DANIELS, of Rochester, N. Y., died on the 6th inst. He was educated at Harvard Medical School and Long Island College Hospital, graduating from the latter school in 1875. He was a member of the Strafford District Medical Society.

Dr. J. F. GHEISELIN, aged 63 years, a wealthy physician of Portland, Ore., and a retired army officer, died in San Francisco on the 2d inst.

Dr. J. B. DARKIN died at Mason City, Ia., March 1.

Dr. EDWARD A. WHITLOCK died at Eagle, Kan., on the 1st inst. He was a graduate of Pulte Medical College, Cincinnati, O.

Dr. EDWARD CRAWSHAW, formerly of St. Louis, died at his home in Kirkwood, Mo., on the 3d inst.

Dr. J. H. WICK died at his home in New Bethlehem, Pa., on the 26th ult., at the age of 76 years.

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ANIMAL LIFE WITHOUT BACTERIA IN THE INTESTINAL CANAL

IN view of the fact that there exists no living animal being which does not harbor bacteria within its interior, especially in the intestinal canal, PASTEUR, in 1885 (*Compt. rend.*, Vol. C, p. 68), expressed the opinion that this symbiosis between animal and bacteria was by no means a purely accidental one dependent upon external conditions, but that the presence of bacteria was necessary for the preservation of life; in other words, that the animal organism, with the aid of the digestive juices alone, was not capable of assimilating the food-stuffs introduced into the intestinal canal. PASTEUR'S views upon this subject did not long remain undisputed, although exact experimental evidence of their correctness or falsity was not furnished.

Judging from experiments recently conducted by NUTTALL and THIERFELDER, of the Hygienic Institute of the University of Berlin (*Hoppe-Seyler's Zeit. f. phys. Chem.*, 1895, XXI, Nos. 2-3, p. 109), it would appear that a positive solution of this problem had at last been obtained.

A bacteria-free animal (guinea-pig), ushered into the world by Cesarean section, and subsequently protected from microbic invasion by an especially constructed apparatus, was nourished upon sterilized cow's milk for a period of eight days. In the apparatus employed, provision was made for the supply of warmth, the introduction of sterile food, the admission of sterile air, and the disposal of the excreta. At the expiration of the time above mentioned, the animal was removed from the apparatus, killed, and opened under the strictest antiseptic precautions. A microscopical examination of the intestinal con-

tents in stained and unstained preparations showed complete absence of bacteria. Although, in the minds of the experimenters, the results thus far obtained were sufficiently decisive, additional tests were made by the preparation of aërobic and anaërobic cultures in gelatin and agar roll-cultures, and also in sugar-agar stab-cultures, from the contents of both the large and small intestine, and from the milk and the excreta which had collected in the apparatus. All cultures remained wholly sterile, not a single colony being observed.

During the eight days the animal was under observation, it consumed 330 ctm. of sterile cow's milk; and, compared with another animal, born of the same mother at the same time and under the same conditions, it gained 10 gme. in weight.

From this it is plain that the presence of bacteria in the intestinal canal is not necessary for the preservation of the life of the guinea-pig, and presumably, also, of other animals or man—at least so long as the food supplied is of a purely animal nature. What conditions prevail in connection with a vegetable or mixed diet must be determined by further researches.

During the course of the above experiment, an important question was raised in reference to the urine. As is well known, the decomposition of albumin in the intestine is attended by the formation of a series of aromatic substances which are absorbed and directly, or after union with other products of metabolism, make their appearance in the urine. While some observers looked upon intestinal decomposition as the only source of these aromatic substances, others were of the opinion that they might also, in part, be formed in the tissues. The latter view was based upon the observation that, in urine

of starving animals, the aromatic products decline, but do not disappear.

BAUMANN (*Zeit. f. phys. Chem.*, X, p. 129) sought to decide the question by examination of the urine of a dog which, for purposes of dissipating the putrefactive processes in the intestine, had been starved for several days, and on the second and fourth day of hunger had received 2 gme. of calomel. In the urine voided on the two days following the administration of calomel, neither sulphuric nor hippuric acid could be detected, though the so-called oxacids (paroxyphenyl-propionic acid, paroxyphenyl-acetic acid) could be demonstrated, although in somewhat reduced amount. BAUMANN, therefore, concluded that the aromatic substances and hippuric acid appearing in the urine of carnivora, are always derived from intestinal decomposition, while the oxacids, besides being developed during putrefactive processes in the intestine, may also be formed in the tissues.

In discussing the work of BAUMANN, NUTTALL and THIERFELDER believe that, in spite of the antiseptic and cathartic actions of the calomel employed, living bacteria unquestionably existed in the intestine. On the other hand, as the intestine of fasting animals is constantly supplied with proteid material by the glands, the assumption is always admissible that the oxacids, found by BAUMANN in the urine of a calomel-fed dog, originated in the intestine, and not in the tissues. Therefore, the question as to the seat of formation of the aromatic acids can positively be determined only by examination of the urine of a bacteria-free animal.

Insects in Therapeutics.—For a long time woodlice were considered diuretic, and were employed even during the last century "to dissolve the mucilaginous tartar of the body, to remove obstructions of the viscera, etc." Patients used to swallow, whole, from four to twelve for cancers and ulcers, etc. Bed-bugs, too, were not without their uses. DISCORIDES assures us that even of them swallowed at the onset of a quartan fever were of great avail in breaking up the disease.

Piano-playing and Nervous Diseases.—It is declared by a French scientist that children should not be allowed to play the piano until they have attained the age of 16, since he has determined that of 1000 girls who played this instrument before the age of 12, 600 suffered from nervous disorders, while from among those who have never played the proportion is only 100 per 1000. Very likely this is an instance where the scientist has not differentiated *use* from *abuse*, since it is very questionable if early training, under the watchful supervision of the teacher, who will not tolerate practice on the piano to excess, can be held responsible for any nervous disorder irrespective of other causal factors.

ORIGINAL CONTRIBUTIONS

GYNECOLOGY AMONG THE INSANE*

By ALFRED T. HOBBS, M. D.

GYNERO-OVARIAN disease and its relations to insanity is a subject that has aroused much controversy and no small amount of bitterness in some sections of the great country south of us. Some State boards of control have thought fit in their wisdom to interfere in the scientific management of the insane, especially in the prosecution of operative procedure for the relief of pelvic disease in the insane, and have characterized special work of this nature as "brutal and inhuman." It is very evident that those who took exception in such violent terms to a distinct advance made in the modern methods for the cure of insanity have been carried away by false theory and misplaced sympathy and could not have had any practical experience of the undoubted benefit which in the majority of instances accrues from necessary surgical interference for the bettering of the condition of these "wards of the State."

Being still in the experimental stage in this matter, I am somewhat diffident about opening up a subject so extensive; but I desire to put on record the result obtained after a year's experience and observation in gynecological work on the insane in London Asylum, and the conclusions reached as to the result of treatment of pelvic disease in insanity. That disease of these organs does produce mental alienation in many instances I have not the slightest doubt. Exception may be taken to this opinion by putting forward the plea that derangement of other just as important organs rarely produces psychic disorders; therefore, why should changes in the genitalia cause this profound mental disturbance? The reason, I believe, is that the brain is intimately connected with the uterus and its appendages through the great sympathetic system; and that disturbances of the latter are reflected upon the former in pathological, just as we know they are in physiological, conditions. To illustrate this, one has but to note the marked influence that puberty has upon the female mind. The girl, in the transition stages to womanhood, not only develops physically, but certain mental qualities hitherto well marked in her are very much altered, and from being a rollicking tomboy she becomes retiring, modest, sedate, and shy in manner, and takes on all the characteristics that differentiate the woman from the child. Then go a step farther, and witness the changes concurrent with budding maternity. The reflex disturbances of various organs, the cheerful nature becoming morose, the despondency giving way to excitability, suspicion, and hate where hitherto love dwelt; the borderland of disordered reason is approached, and, the Rubicon being crossed, the invasion of the domain of insanity itself is often coincident with the

* Read before the London (Canada) Medical Association, March 9, 1896.

puerperal state. If mental changes so marked, so profound, occur as a result of the physiological changes of gestation, would we not naturally expect, in many pathological conditions of these organs, some alteration in the mental attitudes of the sex, especially when an inherent weakness of cerebral tissue is present in the individual?

It is curious to note that the majority of insane women with pelvic lesions do not complain of anything that would lead you to suspect the presence of such disease. If the same local conditions existed in her sane sister, medical advice would soon be sought for their removal or amelioration. The perversion of the intellectual faculties with their omnipresent delusions obscure their judgment, and something totally foreign to the disease is alleged as a cause of the mental derangement. Regarding causation of insanity by pelvic disease, REGIS says (page 349): "The majority of women suffering from organic disease of the uterus fall gradually into depression, moroseness, and hysteria; in fact, they change in their characters and become irritable to excess, sometimes even passionate and violent, and occasionally they go a degree further and pass fully into the domain of insanity;" on page 350 the same author remarks that "Most uterine affections are capable of engendering mental disease by sympathy, and it does not appear that out of the whole number any one has any special influence more than others in this regard"; and on page 351, in speaking of psychic disorders following exactly the phases of the utero-ovarian symptoms, he says: "These facts, which are very curious, establish firmly the relation existing between the mental trouble and the uterine lesion and the subordination of the course of the former to the processes of the latter."

TUKE (Vol. II, page 1244) writes: "Uterine disorders are especially capable of determining by reflex action profound derangement of the cerebral functions."

SAVAGE (1884, page 71), in summing up a chapter on utero-ovarian insanity, says: "Insanity may be started either by serious uterine or ovarian disease, and the symptoms may have some direct relationship to the seat of the disease."

CLOUSTON states, in speaking of uterine or amenorrheal insanity, that "The regular or normal performance of the usual functions of the uterus and ovaries is of the highest importance to the mental soundness of the female." Such, then, is the consensus of opinion of four of the leading psychologists of the age.

The accidents of the puerperium are many and varied, and they bring in their wake distress, debility, and disease. Is it any wonder, then, that women with an inherent tendency to cerebral instability or with highly strung nervous mechanisms passing through the stages of motherhood, and having their return to health retarded or prevented by subinvolution, some tear of the *via naturalis*, some inflammatory exudation, should deteriorate mentally?

Many of these cases of mental alienation are, properly speaking, purely functional, and are de-

pendent on a lowered vitality often induced by surgical disease. The removal of the cause, and building up the physical health, usually promote recovery mentally, if the treatment is carried out before definite and permanent changes take place in the brain centers and irretrievable damage is done, which would certainly follow as a sequence to the long-continued assaults of pelvic sources of irritation. But even in cases in which no mental improvement is to be looked for as a result of operative interference with the utero-ovarian organs, this is still justifiable as being often essential to the patient's general well-being. It removes a source of irritation which constantly worries her and which often leads to maniacal attacks or fits of depression, and, except when death intervenes, it invariably improves the physical health, placing the unfortunate patient on a better basis and making her existence at least tolerable, even if she remain a permanent resident in the institution in which she is confined. Those patients do not suffer as some would lead us to believe during the operation. They are completely anesthetized, and afterward, when reparation is taking place, recovery is usually uneventful, not even a single degree of elevation of temperature occurring to vary convalescence. In some few cases after-treatment is hard to carry out owing to unreasoning obstinacy, or an excitable temperament pertaining to the patient's mental state.

Are then operative measures, tending to relieve this class of patient, to be stigmatized as "brutal and inhuman"? Are methods so rational as outlined in this paper for the improvement of either the physical or mental health, or both, of these unfortunate to be condemned by theorists who perch themselves on a pinnacle and dictate as to what is right and what is wrong, what is brutal and what is not, who arrogate the right to say "thus far shalt thou go and no farther," but who forward their Rip-Van-Winkle ideas and allow misery, discomfort, and disease to hold their sway, and who suffer the light of reason to become hopelessly lost for the want of an outstretched hand and the timely removal of diseased tissues?

Procrastination in these cases is deplorable. Every female admitted, whose history in any way points to defect or malposition, new growths or unhealthy local conditions of any kind, should be systematically and carefully examined, if necessary under an anesthetic, and a correct diagnosis of the lesion made, and, if needed, treatment not only medical but surgical be commenced without delay. Then, after lapse of sufficient time, your patient showing no sign of return to mental health in spite of marked physical gain, you can at least comfort yourself with the reflection that you have given her a chance, and you can rest content with a clear conscience and the knowledge of having at least done all that was possible in the case.

The analysis of the 19 cases I now place before you present no new features gynecologically. The operations performed follow a well-beaten track. I

wish, however, to draw your attention to the marked results which followed in these cases from work done upon the uterus itself. These uterine operations included curettage, divulsion, trachelorrhaphy, and amputation of cervix for conditions of subinvolution, endometritis, and lacerated, cystic, and hypertrophied cervixes. Of these there were 9, and according to the mental state of the patients they were classified as follows: 2 cases of acute mania, 2 recurrent mania, 1 acute puerperal mania, and 4 of chronic mania. Physically every one improved, the gain in weight in some being as much as 25 pounds. Out of the whole number, 6, or 66 per cent., were discharged into the custody of their friends, recovered. Two out of the remaining three have been discharged on probation, and recent letters state that they are doing well, and but one of the 9 remains unimproved mentally, and is still a member of our resident population. Eight, then, out of the 9, are now discharged, representing nearly 89 per cent. of the uterine operations. Some will say they would have recovered in an ordinary way. I say no—not all, as you will observe that four of these were cases of chronic mania, one of 14 years' standing, one of five years, one of three years, and one of two years. The one of three years' standing is the one solitary remainder of this company.

Two operations were done for malposition of uterus by the method devised by ALEXANDER of shortening the round ligaments. One was a case of puerperal mania, of two years' standing, who subsequently improved very much physically, is now much less troublesome than formerly, and has become a useful worker. The other was a case of acute mania, of seven months' standing. She improved mentally, but not enough physically when she was taken away by her friends against our advice. She remained home three months, was brought back in a state of starvation, and died shortly afterward of exhaustion from mania.

Vaginal hysterectomy, for complete procidentia uteri, was carried out in two patients. One was a case of chronic mania passing into dementia, of 24 years' standing; was kept in bed latterly a good deal of her time owing to the prolapsus. Although no mental improvement was expected in this case, the physical health was much benefited.

The second was a case of acute mania, of six months' duration, when the procidentia uteri included a prolapse of the anterior wall of the vagina, causing micturition to be painful and difficult. From the day of the operation she improved steadily in every way, and is once more attending to her household duties, being completely restored to health mentally.

Another case of acute senile mania, whose condition was rendered miserable by a complete procidentia uteri, being too old for an hysterectomy, the uterus was replaced by Freund's operation with buried silk-worm-gut sutures, and is still well retained. Her general health is much improved as a result of this simple yet effective procedure.

For removal of two ovarian cysts a different method was adopted in each patient, one by the abdominal incision and the other per vaginam. The abdominal case progressed favorably up to the twelfth day, when double bacillary pneumonia set in and carried off the patient in 24 hours. An epidemic of la grippe prevailed at the time, a number of asylum patients being laid up with it. Post-mortem showed the stump contracted and the pedicle ligature completely encapsuled by lymph, and the pelvis free from fluid of any kind. There was also good union of the abdominal wound. She was a case of chronic mania of nine years' standing, and was 64 years of age at the time of the operation.

The other case of ovarian cyst was removed by an opening in the cul-de-sac made through the vagina. She recovered rapidly without a solitary bad symptom. Her improvement, especially in bodily health, was very marked, and she is now well enough mentally to be at home. Her mental disease was that of acute mania.

Adherent tubes and ovaries with accompanying menorrhagia and dysmenorrhoea called for surgical interference in a patient who had chronic mania of three years' standing, and who at times was excited, violent, and destructive. The abdominal route was followed, and recovery was uneventful. Although seven months have elapsed, this patient's conduct has been exemplary, and her mental and bodily health much improved.

Celiotomy and removal of a solid mesenteric tumor in another case of mania was followed by death from exhaustion on the fifth day, this patient being acutely maniacal for two or three days subsequent to the operation.

The nineteenth and last on this list was a case of chronic melancholia with delusions of all kinds of imaginary diseases in various organs. Being very uncomfortable from a large circle of hemorrhoids, and having a torn perineum with an accompanying rectocele, the operations of Allingham and Tait, respectively, relieved the symptoms locally, but were not followed by any change in her mental condition.

Before concluding this paper I desire to express my grateful appreciation of the kindness shown me by my superintendent, Dr. BUCKE, in placing at my disposal every facility for carrying on the work, and my thanks are also due to Drs. MEEK, MOORE, ECCLES, and STEVENSON for the valuable assistance rendered me from time to time in these operations.

London, Canada.

Sterilized Olive Oil as a Local Anesthetic.—A fluid injected into the thickness of the skin, by driving away the blood and temporarily preventing its return, produces an anemia that renders the nerve filaments insensible. M. LOUP (*Bulletin Médical*, X, p. 48, 1896), acting upon this principle, has succeeded by means of a perfectly neutral substance—sterilized olive oil—in producing an anesthesia sufficient for the painless extraction of teeth.

SOME TRAUMATISMS COINCIDENT WITH LABOR; THEIR PREVENTION AND REPAIR *

By GEORGE W. JARMAN, M.D.

THE writer makes no excuse for presenting a subject which is, seemingly, so threadbare. With but few exceptions, the general practitioner is called upon to exercise the obstetrical art. It is by the interchange of ideas that the most perfect methods may be brought about; hence, in this paper, I have attempted to state some of my own views rather than to promulgate any new theories.

As will be noted, the writer has limited his remarks to *some* of the traumatism taking place during labor, for it can easily be appreciated that it would be impossible in a single paper to consider all the lesions which may occur during this process.

The remarks in this paper are limited to lacerations of the cervix and perineum, which do not occur as a result of instrumental interference.

It is the opinion of the writer that lacerations of the cervix are, in most instances, unavoidable, occurring as they do most frequently in cervixes which are congenitally malformed. It is a well-known fact that cervixes which, in the non-pregnant state, are long and conical often do not permit of the dilatation which is necessary for the passage of child's head except they rupture.

Before it is possible to consider methods which are calculated to prevent laceration of the cervix it is necessary to study the mechanism of the production of the tear.

Doubtless every one present has noticed the almost universal frequency of the lateral tear as opposed to either the stellate or multiple, the anterior or posterior. This great frequency of the lateral variety could not be due to chance, and we must seek the cause.

Literature on this subject, so far as the writer knows, is entirely absent. Many authors refer to the frequency of the unilateral tear occurring on the left side, and almost without exception state that it is due to the great frequency of the left-occiput-anterior position. It seems to the writer that this reason is not tenable from the fact that if it was due to the direct action of the occiput we should find the lesion occurring in the right oblique diameter, whereas in reality the tear nearly always occurs at a point somewhat posterior to the left lateral radius. The writer is convinced that the cause must be sought elsewhere, and offers this explanation: First, that lacerations of the cervix do not take place until after the occiput has rotated forward, in occiput anterior positions. Second, that the tear is produced when the anterior portion of the cervix is caught between the occiput and the pubes and the posterior portion of the cervix retracts over the brow, face, and chin.

For a moment let us study some of the details of this process. The writer is well aware of the fact that, when complete dilatation of the cervix has been produced by the bag of waters, the head

will pass through it while it is yet in the oblique diameter, but that when the head becomes the dilating medium the cervical ring is in a measure carried before it. In the first instance laceration rarely occurs; it is in the second class of cases that we find the greatest number of tears. The anterior portion of the cervix is distinctly nearer the vulvar outlet than the posterior, and is often pushed forward in front of the occiput. Flexion of the child's head is greatest while it is still within the cervix, and as it descends to the perineal floor the posterior cervical ring retracts over the face and chin, thus causing the greatest strain along its lateral borders.

If this was the only cause in the production of lacerations of the cervix it would be impossible to explain why they are so nearly constant at a point somewhat posterior to the middle of the lateral borders of the cervix, and the writer believes that this explanation is found in the anatomical construction of the cervix itself. The anterior portion of the cervix is thicker than the posterior, and the cervical canal is not round, but very nearly a lateral slit. There is a distinct anterior and posterior cervical column, adding strength to these walls. Any one who has had occasion to examine uteri which have been removed for such pathological conditions as diseased appendages will recall this fact. Thus we see that the point of least resistance is on either side of the cervix, at a point a little posterior to the exact transverse line.

These two causes will certainly explain why the great majority of tears are transverse.

Again it will explain why cervixes of unusual length are so much more frequently lacerated; for the elongated cervix is more certain to be caught between the pubes and occiput, and the posterior portion of the cervical ring must move over a greater distance when the face and chin are released from its grasp.

All writers agree that lacerations of the cervix are less frequent where rupture of the membranes does not take place until complete dilatation has occurred, since the dilating-bag adjusts itself perfectly to the cervical ring. Hence it is needless to say that premature rupture of the membranes is to be avoided, and that, in making the necessary examinations to determine the progress of labor, caution must be used that the examining finger does not press upon the bag of waters during a contraction of the uterus. This preventive measure is known to all. The writer has practiced another measure, however, which has apparently been of some service. After the premature rupture of the membranes has taken place, and the head is still within the grasp of the cervical ring, it is possible, at least in a certain proportion of cases, by manipulation, to disengage the occiput before the posterior portion of the presenting part is free from the grasp of the cervix. As the cervix retracts over the occiput, the lessened tension permits of the disengagement of the face and chin without rupture. This manipula-

* Read before the West End Medical Society, February 1, 1896.

tion should be conducted between pains, when the borders of the cervix are least tense.

The fact still remains, however, that in spite of all precautions lacerations of the cervix will occur, and it is the writer's belief that all such lacerations should be repaired—provided the tear is more than of the first degree, and that no contraindications on account of the condition of the patient exist, except postpartum hemorrhage requiring uterine tamponade.

The closure of one avenue of infection, the prevention of one of the most frequent causes of subinvolution, with its long train of symptoms, the removing of the possibility of an after-operation, and, in fact, the right that the patient possesses of being left in the most normal condition, all demand the repair of a cervix which has been lacerated. It is needless to suppose that a large number of assistants are necessary, for such is not the case. Neither is it necessary to have a great number of instruments. The repair of the laceration can be accomplished single-handed, were it not for the necessary presence of some one to administer the anesthetic. The patient should be so placed that the buttocks shall be well over the edge of the bed and the thighs flexed over the abdomen. The anterior lip of the cervix should be grasped with a strong tenaculum, preferably of the double variety, and drawn down to the vulvar outlet. Personally, so that I may be forced to carry the least number of instruments necessary, I use a small artery clamp for a needle-holder, and arming a curved surgeon's needle with silkworm gut, I proceed to pass the requisite number of sutures to close the laceration. The sutures should be tied more firmly than in any other surgical procedure, since the rapid involution of the cervix would otherwise soon render them too lax to keep the surfaces in apposition.

The writer has found silkworm-gut preferable to any other suture material, from the ease of rendering it sterile by boiling, and from its more absorbable character. It may be left *in situ* any length of time, and removed at the operator's convenience.

Lacerations of the perineum have received far more thought during the last ten years than ever before, probably owing to the great strides that have been made in gynecology during this time, and, as it has been determined that they play no small rôle in the causation of pathological conditions, methods of prevention and repair have assumed greater importance. It is not at all infrequent to hear men say that they never see such accidents among their own patients. The old adage, "that none are so blind as those who will not see," is certainly appropriate in the cases of such observers, or, rather, non-observers. That lacerations of the perineum will occur even in the hands of the most expert is a well-known fact. Undoubtedly, however, the preventive measures are far more applicable and practicable in lacerations of the perineum than in those of the cervix.

Again, it is necessary to consider the mechanism of the causes which produce laceration of the peri-

neum before we can best determine upon some preventive measures which may be adopted.

I shall depart somewhat from the usual nomenclature, and, in place of speaking of the three degrees of laceration, shall refer to them as internal, external incomplete, and external complete lacerations. This division certainly will render the remarks upon repair more intelligible. The internal laceration again must be divided into the tear, which involves the vaginal wall, and the subcutaneous variety. The production of the laceration differs in these two tears. Of the first I shall say but very little, inasmuch as it nearly always takes place as a result of operative procedures. The gradual dilatation of the perineum is as necessary as that of the cervix, if lacerations are to be avoided. Old primiparæ, whose perineal tissues are less resilient, are very much more likely to suffer from traumatism of this character. It would naturally follow that, if the uterine contractions are very firm, and are likely to expel the head before the proper dilatation of the perineal floor has obtained, the obstetrician must use such preventive measures as are within his power. While the writer does not express it in a dogmatical way that it is best to confine such women in the lateral posture, he has personally found it preferable.

With the patient in Sims's position it certainly seems easier to control the advance of the head by pressure upon the occiput. The first and second fingers of the right hand rest upon the occiput, and the thumb back of the anus; this gives perfect control over the farther descent of the head, and at the same time produces more perfect flexion. It is wonderful what this intermittent dilatation of the perineum will accomplish. It would seem that at this time chloroform anesthesia is a most helpful adjuvant. It lessens the intensity of the pains and prevents the misguided efforts upon the part of the patient.

When dilatation is complete, the head should be delivered *between* the pains, at a time when the vulvar borders are least tense. This can be readily accomplished by passing two fingers into the rectum and making direct traction upon the chin; or, a method which is perhaps better, upward pressure upon the malar prominences, the other hand preventing the too rapid extension of the head.

The overdilatation which is coincident with the delivery of the head is almost certain to induce a firm contraction of the uterus. It is here that the obstetrician must be on the alert, or else the perineum may be torn by the too rapid delivery of the shoulders. To avoid this accident, it is only necessary to grasp the head firmly as soon as it has been expelled, and to prevent the delivery of the shoulders until after the cessation of the next pain, when it can be accomplished with less risk to the soft parts. The writer is convinced that many perinei which have escaped laceration at the time of the expulsion of the head are torn by the too rapid delivery of the shoulders.

If it is evident that one's efforts in this direction are not successful, and that laceration of the perineum is impending, episiotomy should at once be performed. The vulvar outlet enlarged by two lateral incisions is certainly in a more favorable condition for repair than one which has been torn.

Mention has been made of the internal subcutaneous laceration; in reality it should be denominated submucous. This tear is confined to the deep muscular structures of the pelvic floor, and any one who has occasion to work in gynecological clinics will recall how many symptoms accompany such a lesion—prolapsus of the uterus and vaginal walls being almost constant. This tear is nearly always due to the long pressure of the head upon the pelvic floor, and its prevention is to be found in the timely application of forceps, and extraction. These, then, are some of the preventive measures which may be adopted, and in a great number of cases they will prove successful. There will still remain a certain proportion of cases where laceration will occur, and where repair will be necessary. It should be the routine practice, after the completion of the delivery, to examine by sight the condition of the pelvic floor. It is not at all infrequent to find that, upon separation of the vulvar orifice, that internal laceration has taken place, while the external, or skin, perineum may be intact. This traumatism is one productive of a long chain of symptoms, unless repaired. The question of anesthesia is one which will depend much upon the extent of the tear; if only a few stitches are necessary, no anesthetic need be given, for the parts are so benumbed by pressure that but little pain is experienced. If the tear, on the other hand, is extensive, it is better to administer the anesthetic, so that the surfaces may be more perfectly coaptated.

The method of operating will vary with the character of the traumatism. If the tear is entirely internal the upper angle of the tear should be exposed and a needle armed with silkworm-gut should be passed from one side to the other of the laceration, care being taken that the suture is entirely buried. Sutures may in this way be passed at intervals of about $\frac{1}{4}$ inch until a sufficient number has been adjusted to close the wound. The sutures should be tied firmly to allow for the subsidence of the edema of the parts. If the tear is external, incomplete—that is, not involving the sphincter—sutures may be passed in the same way.

If the tear, however, involves the fibers of the sphincter the operation is somewhat more complicated. It is best here first to convert the complete laceration into an incomplete one by sewing up the torn gut and sphincter. The rent in the gut should be repaired by passing silkworm-gut sutures from the rectal side into the wound, and then back into rectum, so that when the sutures are tied the knots will be in the rectum. The severed ends of the sphincter must be found and carefully united by means of a suture which passes entirely around the depth of the wound. When the sphincter has been

properly united, the other steps of the operation will be the same as has already been stated. The field of operation will be rendered distinct if sterilized cotton is passed into the vagina to absorb the flow of blood from the cervix.

New York; 61 West 74th street.

AN INSTRUMENT FOR MASSAGE OF THE PROSTATE*

By GEORGE KNOWLES SWINBURNE, M.D.

IN presenting this instrument for massage of the prostate, I feel that a word of explanation is necessary. In the past two or three years articles have appeared in the journals, more frequently in the German, calling attention to the good results that may be expected from massage of the prostate. Then Dr. FULLER gave us his well-known article and new book on diseases of the seminal vesicles, and the improvement of the symptoms which may be expected by his stripping process.

It was Dr. FULLER's article that stimulated me to do some work along this line. I had plenty of clinical material, and for the past year and a half I have examined, stripped, and massaged at least 5 to 10 cases a day. At first I looked upon the majority of these as cases of seminal vesiculitis, but as time has gone on I have had occasion to change my views somewhat. To-day I believe I find a few cases of seminal vesiculitis with little or no involvement of the prostate, and these are improved by stripping; but the large majority of these I have come to look upon as chronic prostatitis, or chronic posterior urethritis combined with chronic prostatitis, in which the seminal vesicles, or the ampullæ of Henle, may or may not be involved. These cases I have found to be improved by massage of the prostate, combined with irrigation of the entire urethra.

For massage of the prostate I prefer the finger, but for the past four or five weeks I have used this instrument in many instances. I find it useful in breaking a patient in; it can be used oftener and for a longer time,—3 to 10 minutes and every other day,—if necessary.

There are cases where, in the beginning at least, the finger is very unpleasant to the patient, and the prostate is difficult to get at. In these cases I have found this instrument satisfactory.

The idea of using an instrument at all was due to an article by FELEKI, of Budapest, in the *Centralblatt für die Krankheiten der Harn- und Sexual-Organen*, 1895, Nos. 9 and 10, on the "Study of Chronic Inflammation of the Prostate and Seminal Vesicles,"¹ in which he describes an instrument which he had had made for this purpose. This instrument (Feleki's) is made with a handle 20 ctm. long attached at nearly right-angles with the portion for doing the work, which portion is 13 ctm., is shaped like an elongated pear, the extremity of which is 6 ctm. in circumference. The object of having the handle at

* Read before the New York Academy of Medicine, Section on Genito-Urinary Surgery, March 10, 1896.

¹ Digest in the BULLETIN, March 14, 1896, p. 362.

this angle is because he has the patient lie on his back.

In his article FELEKI presents some figures, derived from dissections on the cadaver, on the distance of the upper border of the prostate and the seminal vesicles from the anus, and believes that the finger very often cannot even reach the upper border of the prostate. He fails, however, to take into account the elasticity of the living tissues, and therefore the distance that even a short finger by practice can be made to reach.

This instrument which I present was made to do the same work as his, but I had two other points in view: (1) To reach and empty the seminal vesicle for purposes of diagnosis; (2) for treatment.

I have imitated the curved finger; the slender stem is not so disagreeable to the patient as is the finger; and with the movements of the instrument the anus does not rise, so that with the marks on the stem we can tell just the depth we have reached. These

marks are placed at 11½ and 13 ctm. from the tip respectively, or 4½ and 5½ in. The fig-

ures were taken from FELEKI's measurements. The thumb-screw points in the same direction as the tip, so that its direction while in the rectum is always known.

I prefer the position recommended by Dr. FULLER for stripping the vesicles. The handle of the instrument is not to be raised, but carried downward, the work being done by the flat of the head.

I have satisfied myself that this instrument will do its work; and one use which I have already put it to has been for the purpose of the diagnosis of the presence or absence of spermatozoa, and even whether one or both sides are involved, and believe that it can be accurately determined whether, for instance, after an epididymitis, the vas deferens is pervious.

The instrument was made for me by TIEMANN.

New York; 48 East Twenty-sixth street.

[For discussion see p. 435.]

Garbage Disposal.—Even Rockaway Beach, L. I., is in advance of New York, its health officer having ordered from Pittsburg a garbage cremator which will consume 60 tons of refuse every 24 hours. One of the objects of this reduction plant will be to keep the beach clean from the garbage which the scows dump into the ocean and the tides strew on the land. When this plant is in operation possibly the Street-cleaning Commissioner of the great city of New York might be requested and prevailed upon to inspect it in order that his mind may be satisfied, as for long has been that of the citizens, that cremation of garbage is a proved possibility where an official responsible for the disposition of such material is not persistently and willfully blind to established facts

REPORTS AND VIEWS

SEXUAL PERVERSION IN THE CRIMINAL INSANE

By L. PIERCE CLARK, M.D.

I offer this case for publication, which to me is interesting and rare.

L. G., 26 years old, of French descent and of low order of intelligence. He was convicted and sent to States Prison on the charge of rape and assault, with intent to kill, upon an 8-year-old girl. After he had been in prison for three months he was declared insane, and was thereupon sent to the Connecticut State Hospital for the Insane for care and treatment. It was at this latter place that the patient first came under my observation. He presented many stigmata of degeneration, such as asymmetry of the cranial vault, the cartilage of right ear was poorly formed and much higher than the left; the lower jaw was very heavy and protruding, and his

general appearance was one of only a little higher intelligence than the brute. He repeatedly

attacked the attendant who was in charge while at work about the hospital grounds. At first the suddenness and ferocity of these attacks could not be accounted for. The cause of them was not thoroughly looked into, because one accustomed to dealing with the criminal insane knows how improbable it is that, after the most careful search, a reason can be discovered for these exhibitions of brutal violence. His favorite method of attack was to throw himself upon his victim from behind and endeavor to strangle and bite him about the head and neck, especially to bite in the thick shoulder muscle. While making these ferocious and beastly attacks he laughed and snarled, and chattered constantly, like an ape; his features were pallid, eyes staring, and facial muscles firm set. It evidently gave him the greatest satisfaction to make these attacks. For a long time after he has made the assault he can be heard to mutter to himself: "It was good; I like it."

Finally it was discovered that he had these periods of violence only after he had been near the women's part of the hospital, or they came near him while he was at work. He is an inveterate masturbator, and practices the habit both in public and private. An illustration of one of these vicarious orgasms is an incident which happened only a few weeks ago. While on the hospital grounds digging some post-holes by the public highway, two women drove by in a carriage, and the patient at once became excited and refused to work. After the carriage passed he made a violent assault upon a patient near him. With cries of exultation and satisfaction not unlike some of the brute cries in performing the sexual act, he continued to bite and choke his victim, and only after active interference



INSTRUMENT FOR PROSTATE MASSAGE.

on the part of the attendant did he loosen his deadly grip with teeth and hands. The attendants have recognized the relation of his excitement and the presence of women, and refuse to take him to work where they may chance to pass. These demonstrations of violence are attended by congestion and erection of the penis with an ejaculation of semen as an occasional accompaniment.

This is the only case of sexual perversion coming under my notice in which its vicarious gratification has been attended by a homicidal attempt upon one of the same sex.

Craig Colony, Sonyea, N. Y.

A CASE OF PROLONGED FEEDING WITH THE TUBE

By ALBERT WARREN FERRIS, A.M., M.D.

Assistant in Nervous Department, Vanderbilt Clinic, College of Physicians and Surgeons, New York.

C. S., aged 35, had been a victim of general paralysis of the insane for over a year. During the second stage of the disease he had manifested incessant restlessness, boisterousness, and occasional violence. He passed rapidly into a condition of intellectual obtundity at the time when the chief of his many delusions was that he was being poisoned with opium. This was in May. In June he attacked his physician with a penknife, explaining his act by saying that he heard voices saying, "They are going to kill you."

June 19 he was fed with a teaspoon, as he was afraid he was being poisoned. June 24 he smelled opium in his hat, his clothes, his books, etc. July 4 he was fed with a nasal tube, having refused food that day. Fancied he was contaminated with opium by being touched by any one. Exhibited delusions of identity. Smelled opium in fruit offered him, but ate it when others tasted it in his presence. August 14 to 21 he received mostly liquid food, such being more easily administered. August 21 he refused all food, and was thereafter fed with the nasal tube thrice a day until otherwise noted. September 3, he ate a little fruit. October 22, ate a morsel of milk toast. December 28, ate a piece of pear and some grapes which were thrust into his mouth. April 16, he ate a section of orange. May 4, fed hereafter only twice a day, because of increasing corpulence and vomiting after feeding. October 22, growing thinner; three meals a day resumed. March 1, swallowed a little ice cream put into his mouth. May 25, he ejected a spoonful of milk given him. May 30, drank water. (During the summer, water was occasionally given him through the tube, though he never exhibited thirst.) May 31, drank egg-nog. June 1, drank milk willingly. June 2, ate solid food, and manifested bulimia from that time on till his death.

To sum up, he took no actual nourishment for 1 year, 9 months, and 10 days, except through the tube.

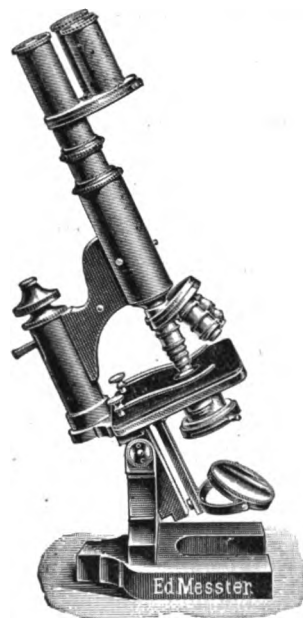
New York City; 12 East Forty-seventh street.

A UNIVERSAL BACTERIA MICROSCOPE

By G. THEO. FISCHER, M.D.

To possess a really good, reliable microscope is nowadays the desire of almost any physician. But the prices charged for these instruments are so exceedingly high that a great many have to refrain from purchasing one. I therefore hope to merit the thanks of my colleagues in making them acquainted with a microscope that is not only extraordinarily cheap, but at the same time unites in itself everything that fairly can be expected from a good instrument. I have used for nearly four years a microscope which I will describe below, and do not want a better one, as it is in fact sufficient for any scientific examination, giving very sharp, distinct, and achromatic views. The notion that none but an expensive microscope can be a good one is nothing but a very costly prejudice.

The microscope I have in mind (see cut) is 17 inches high, and has, besides the revolving nose-piece, a revolving adapter for three eye-pieces—a feature which is entirely new and secures an almost imme-



diately change of systems, thus saving much time and trouble.

The whole tube can be raised or lowered by means of a lever, and this without altering the focusing of the object. The instrument is supplied with three objectives (4, 7, and oil immersion), securing a linear magnifying power of from 50 to 1500, and, with an Abbé condensor and iris diaphragm, costs in a mahogany case \$50. The instrument is made by Edward Messter, West-end, near Berlin, Germany.

I can conscientiously recommend the instrument to anyone who enjoys microscopical work.

54 North Clinton street, Rochester, N. Y.

Xeroform is a fanciful name for tribrom-phenol-bismuth.

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OXYGEN CONSUMPTION AND SANITATION.—Appropos the subject of "the consumption of oxygen in schools," etc., as brought out by Dr. GUNSTER'S paper recently read before the Lackawanna Medical Association, of Scranton, Pa., and discussed by that body, attention might be directed to the unsatisfactory sanitary conditions that prevail in the majority of our prisons and poorhouses. A general concurrence of opinion condemns the practice of subjecting a person, who, by the due course of law, is deprived of his liberty for an offense against the State, to surroundings which predispose him, during such deprivation, to loss of physical health and disease. It is stated by an authority on hygiene that the mortality of convicts, even in the best-regulated prisons, where especial attention is given to the sanitary requirements of such institutions, is three times as great as among workmen in mines—confessedly one of the worst occupations. It is a known fact that in most of our prisons a lack of sanitary supervision exists, and in some of our smaller institutions prophylactic measures are totally ignored. As a result, the prisoner who is deprived of his liberty and an opportunity of taking care of himself finds at the expiration of his term of imprisonment that he is a

physical wreck. The cachectic condition so manifest in persons undergoing confinement in prison is well known, and the depraved habit of body induced thereby is dangerously enhanced where sanitary surveillance is *nil*—moreover, the deteriorated functional condition, caused by long confinement in such an institution, is oftentimes the precursor of pulmonary phthisis and the diseases of inanition. Has the State a right to exact conditions that will, in any measure, jeopardize the health of its charge, or render him permanently disabled to any extent? To the end of securing a possible immunity from disease, where such conditions exist, necessity demands that hygienic principles be thoroughly and effectually prosecuted.

Our quarantine system, though far from perfect, succeeds in a measure in preventing the influx of infectious diseases of exotic origin, and the danger of contamination from foreign source as compared with prison and poorhouse hygiene, and individual prophylaxis, is therefore small. A wide field for active sanitary work in the direction of the latter exists.

Little interest is manifested by some municipalities in the physical welfare of the inmates of their prisons and poorhouses. We have in mind a recent visit to the gaol and poorhouse of one of our metropolitan cities where gross and flagrant ignorance of sanitary conditions was necessarily a matter known to the authorities, and, notwithstanding the danger which such conditions predispose, no measures were taken to mitigate the evil or to inaugurate a departure for the better sanitation of the institution. The inspection made was of a private character for the purpose of investigating in a personal capacity the system of government and treatment of its prisoners.

It can hardly be expected that prison and charity hospitals should enjoy the little niceties and conveniences that are to be found in many of our well-equipped New York hospitals, but cleanliness is not an expense where a liberal water-supply is afforded, and a thorough sanitary system in that respect should be made obligatory by force of law and not optional with the sometimes prejudiced minds of a few who control such institutions. Unsanitary conditions are a menace to the community in which they exist, and serve only to favor the propagation of disease. Returning to the subject of oxygen and ventilation in connection with the institution referred to, the total lack of appreciation of this vital necessity was strongly emphasized. The ward assigned to colored male prisoners had a capacity of 30 beds with the regulation superficial space and adequate cubic air

space; the facilities for ventilation were excellent both by natural and artificial means, yet these essential requisites to the health of the sick and unfortunate were totally ignored. The only apparent solution or the sanitary question as regards prisons and poor houses lies in legislation, and it remains for a sanitary PARKHURST to put the wheels of law in motion

WHY FEMALE DOCTORS DO NOT APPLY.—Several times within the last three years it has come to our notice that the New York State Civil-service Commission has announced the fact that few or no female physicians have made application for the position of assistant physician in our State hospitals. The reasons for this state of affairs do not seem to be apparent to the Commission, and we therefore take the liberty of stating some of them.

One of the first difficulties that confronts the female physician as she presents herself for civil-service appointment is that she is obliged to be an actual legal resident in this State prior to such examination. She is debarred from trying the examination if she has no residence prior to her medical training in any of our State medical colleges, as student life at a medical school neither gives residence nor takes away a previous one. This stricture at one stroke cuts off from examination every female physician graduating and living anywhere but in New York State.

The next difficulty which presents itself is that, before entering a State hospital, she must have had one year's experience in a general hospital, or three years' experience in the actual practice of her profession. When we take into account the fact that the general practice of medicine by female physicians is a comparatively new departure for women, and that but few general hospitals have female medical internes, this restriction seems unduly severe. The average female physician has either become thoroughly established in private practice at the end of three years, or she has become so "rusty" in the theory of medicine that she is unable, if not unwilling, to make the necessary effort for a reviewal in medical study. In either case, she is not a desirable candidate for assistant physician in our State hospitals.

Again, it is required that assistant physicians shall be legally qualified by the State Examining Board for practice in this State prior to their appointment to positions in our State hospitals.

The injustice to the female physician is rendered even more apparent when we see that the regular male member of the medical staff is allowed to substitute one year's work as a medical interne in a

State hospital for one year's experience in a general hospital. The female physician is debarred from doing this, as there are no positions for female medical internes in the State hospitals.

In brief, we have stated some of the reasons why more female physicians do not present themselves for examinations in this branch of the civil service. In justice to this class, some of these restrictions and requirements should be removed, and we would suggest that the New York State residence clause be changed so as to allow all female physicians from every State to compete for these positions.

At best, the class of female physicians is a small one. Many women graduate yearly from Philadelphia and Chicago colleges who are fully as capable and desirable candidates as any of those graduating from our own schools. If this residence clause is removed, we think there would be no lack of applicants for the position of assistant female physician in the State Hospitals.

NEW CURES AND THE "FILTHY LUCRE."—We learn from the secular press that a physician of Rio Janeiro, Brazil, declares that he has found in the extract of eucalyptus an agent which is almost specific in its effect when administered to individuals ill with yellow fever.

The claim is advanced that this drug has been used in the hospitals of Rio Janeiro and that happy results followed its exhibition, but we are supplied with no data or details as to its method of administration nor are specific cases reported.

It is the indulgence in glittering generalities in spreading broadcast reports of these so-called "new cures" which rouses the general public to enthusiasm only to have all hopes shattered as to the efficacy of the remedial agent, when, as is generally the case, the "new cure" proves a total failure on thorough testing. We have in mind a few of the late "new cures" for cancer, tuberculosis, etc.

It is a well-known fact that the average individual afflicted with a chronic disease will resort to any and every therapeutic measure or drug in the hope of securing alleviation. Whether or not these "cures" are advocated from purely personal motives must be answered by every man for himself and for each individual instance. Nevertheless the fact remains, curiously enough, that truly valuable medical discoveries rarely yield the discoverer pecuniary benefit, whereas those who advocate "new cures" generally succeed in shrouding their remedies with a certain amount of mystery and derive large profits therefrom.

FEALTY AND LOYALTY AMONG MEDICAL MEN.—

A number of our exchanges have of late commented on the obligations of physicians to one another and to the families of professional men in case of illness. If the practices which are described do not fall far short of the truth, there exists a most deplorable state of affairs, against which the BULLETIN would protest in the strongest condemnatory terms. It is stated that it has become the custom of "consultants to rob" their professional brother; that is to say, to exact professional fees for services rendered him or his family. An exchange states: "It is with shame and indignation that we are compelled to recognize a growing tendency on the part of a certain proportion of our profession, particularly specialists, to charge other doctors and those dependent on them for surgical attendance. We know that this shameful abuse of a trust is not general, and we do not believe that it will ever be so; but that it can and has been practiced openly by prominent men, in widely separated parts of this country, should be enough to place the honorable members of the profession upon their guard and to make them ready to denounce such methods of sharp dealing and legalized robbery, wherever discovered and by whomsoever practiced." To all this the BULLETIN utters a loud Amen!

But the BULLETIN confesses frankly, even though it thus appears green, that, while occasional actions of this character have come under its ken, it must believe that the statement, taken broadly, is a libel on the profession. The BULLETIN knows of too many instances where men, eminent and the reverse, have given freely of their time and of their talents to even the humblest member of the medical profession without asking for pecuniary reward, and, indeed, with the feeling—the only proper one—that a great honor had been conferred on them by being asked to render the service. Think for one moment of the night's sleep sacrificed—of the great, dual responsibility resting on the medical man who is requested to attend the wife of a professional brother in the hour of one of her greatest trials—that of bringing, possibly, an embryo-doctor into the world. Is it not a sign of the greatest possible confidence, is it not a mark of the highest recognition of talent, for a medical man to be selected out of so many fully as competent to serve under what may at any time become an emergency of the ripest kind? Can money pay for rendering such service to a brother-physician when money never pays for doing so by a layman? Is not the reward sufficient that confidence has been reposed and honor con-

ferred? Away the thought that medical men as a rule charge their brother in his extremity!

That there are black sheep in the medical profession, as indeed everywhere in this world, is a trite saying; but the BULLETIN cannot believe that there is such lack of *fealty* among medical men as the extracts from our exchanges would seem to show there is, even though the BULLETIN has frequently had cause to deplore the lack of *loyalty* which every now and then crops out. The BULLETIN knows that for every vacant place in a hospital, even though it be vacant on account of principle, there are applicants by the score, before the ink conveying the resignation has become fairly dry. The BULLETIN is aware that, in every locality, there are medical men ready to undermine other medical men in order to secure desired positions in public hospitals for the good of a clique. The BULLETIN is not blind to the fact that the very men who condemn acts, such as indorsement of patent preparations by their professional brethren, are frequently the worst sinners—witness those members of a certain association who, under the Code they are governed by, are forbidden to advertise and yet most freely do so, while their association turns the cold shoulder on other men who have abrogated a code and yet live up to one.

But that a medical man should charge another medical man for services, whether medical or surgical, realizing as he must that in his extremity he may have to seek similar services—again, away the thought! And if indeed such practice be as prevalent as certain exchanges claim that it is, then the sooner such medical men take to *mere trade* and forsake a *profession* they are a disgrace to, the better. We have heard a clergyman state that he did not except his own profession when he said that of all professions the noblest was that of medicine. This tribute was pleasing to our ears. If this same clergyman, who will bury the medical man without fee, could have heard that which the BULLETIN indignantly repudiates as a vile slur on the medical man, we fear he would have been entitled to say with greater truth, "It should be the noblest, but, God help us! it has sunk to a lower level than a mere trades-union."

In no profession should the Golden Rule obtain to a greater degree among brethren than in that of medicine; and the BULLETIN expresses the hope that certain journals uttered thoughts which do them credit, even though quiet reflection should satisfy them that they have been guilty of the unlogical act of arguing from the particular to the general.

DR. KERSCHNER'S DISMISSAL.—The President has sustained the findings of the court-martial that tried Dr. KERSCHNER, and he will consequently be dismissed from the service. This is the reward a medical officer in the United States Navy receives for the faithful performance of his duty. It is not surprising that there are more vacancies in the medical service of the navy than applicants, and if medical men fully appreciated the indignities to which they will be subjected as naval surgeons, they would decline to enter the service.

The whole matter is readily explained in a very few words—it is a fight between the line and the staff, a fight which has been waged for years. The matter was well summed up in a recent letter from Mr. HORACE B. FRY to the *New York Sun*: “When a quarrel between line and staff finds its way into a court-martial the findings of the court are always adverse to the staff.”

No fair-minded man but will approve Dr. KERSCHNER's conduct. He suffers because he did not obey an order that might have caused disease to be introduced into the ship, and he considered that he was responsible for the healthfulness of those who had been intrusted to his care. That Dr. KERSCHNER was a thorough sanitarian, properly equipped for his duties, was made evident during the time when the war in Brazil was in progress. Yellow fever invaded every fleet except the American, and the exemption of this particular fleet from the pestilence was due to the wise precautionary measures of Dr. KERSCHNER, the fleet surgeon. Every medical man in the country will applaud Dr. KERSCHNER's course, and we extend our sympathy to him, and regret that affairs in the American Navy should be so administered that a man can be dismissed for doing his duty to his country and for protecting the lives of his charges.

ARE LAWYERS AND CORONERS INCOMPATIBLE?—Over and over again the public has been treated to scenes such as the one reported to have been enacted recently at a coroner's inquest in New York city, where the time of the patient jurymen, of the witnesses, and possibly of the person accused of the crime was wasted, while distinguished lawyers and equally distinguished coroners were engaged in personal disputes, which, far from adding to the dignity which should surround a court of justice, even though presided over by that remnant of antiquity, the coroner, makes a laughing-stock of a system which has for long disgraced this city, and which calls loudly upon the Legislature of the State for the

radical remedy of abolition. The sum-total of these squabbles is too often the discharge of the accused, whereas, under a more judicial and orderly system, a verdict of the reverse order might oftener be rendered.

It seems as though certain gentlemen learned in the law were simply employed to so obtund the sense of certain gentlemen selected to serve as coroners that, amid the mirth provoked by the proceedings, their solemn nature shall be forgotten, so that instead of an inquest the public shall be treated to a farce such as may be witnessed, for example, at a negro minstrel show. How long will the patience of the citizens of this community be tampered with after this unseemly fashion? If lawyers must squabble with coroners let them seek the wilds where prize-fights are conducted with other weapons than the tongue, and let them be disbarred from wordy wrangles in a court of justice. Evidently there is but one way of settling this question, and this is along the line repeatedly dwelt upon by the *BULLETIN*. Abolish that useless appendage, the coroner, and substitute a system under which lawyers will be made to realize that their chief purpose in life shall not be to convert justice into injustice, and solemnity into a farce. Under the present system the unfortunate coroner has not the power to commit for contempt of court the individual—whether lawyer or witness—who, with the obvious intent of defeating justice and of befogging the issue, rakes up matters not at all pertinent, or answers questions impudently.

When the new law, which we trust will be enacted, goes into force, the medical expert will determine facts and report them to an officer judicial in every sense; and then shrewd lawyers, employed from the very fact of their recognized possession of this faculty, will be obliged to behave themselves with that decorum which sanctifies the law court, and which makes justice feared by the evil-doer; and the coroners, who are abolished, can earn a living in pastures where medical talent or other talent can thrive without the mental friction entailed by the absence of decorum and the besmirching of the name Justice, which too often characterize the existing order of things.

As Others See Us.—“We observe that the *AMERICAN MEDICO-SURGICAL BULLETIN* has become a weekly. We rejoice in the fact that we shall have the pleasure of receiving it more frequently. We see no reason why the *BULLETIN* does not rank with the highest in international journalism.”—*N. Y. State Med. Rep.*

STRAY ANIMALS.—The recent annual report of the American Society for the Prevention of Cruelty to Animals contains some very interesting statements. Since the establishment of the shelter for stray animals in New York proved to be such an advance over the old system of a pound with irresponsible catchers, the demand for a similar institution in Brooklyn has been met by a like establishment in that city.

The report states that during the past year 21,741 dogs have been received, and that of this number 3192 have been returned to their owners, while 397 have been placed in desirable homes. Of cats, 24,140 have been received, 24 have been returned to their owners, and 80 have been provided with homes. Such a total of 45,881 stray or homeless animals removed from the streets certainly speaks well for the efficiency of the company's agents. Nearly all of those taken from the streets and tenements are found to be suffering from the mange, or other parasitic diseases. Naturally, the larger part of these have been humanely put out of the way. With their destruction the danger of the infection of valuable animals is considerably lessened. The question is also raised, whether, since animals have been known to be the direct carriers of the infectious principles of diphtheria, scarlet fever, etc., this work of the society may not have some influence in restricting the spread of these diseases. Any one who is forced to remain in the city during the hot months, after the annual exodus of families to the country, is familiar with the sight of starving and emaciated felines which, shut heartlessly out of the houses in which they have lived, and deprived not only of water and their daily rations, but also debarred from the opportunities of securing their natural prey, pick up a precarious living from the garbage-cans as best they may.

It is, furthermore, interesting from the standpoint of the neurologist to speculate upon the beneficial effects, in decreased nervous strain and more unbroken sleep, upon the inhabitants of the sister cities, resulting from the annihilation of 24,000 midnight vocalists.

A POST-GRADUATE ANNEX TO OUR UNDERGRADUATE SCHOOLS—There are rumors in the air, so constantly repeated that where there is such smoke there must follow fire, that the College of Physicians and Surgeons of New York, the medical department of Columbia University, is shortly going to open a school for post-graduate instruction. This institution, if such should be its intention, is in a perfect

position to do so. It possesses ample clinical facilities, close at hand, even though it finds it impracticable—as obviously it will—to persuade its students to resort to remote island institutions which, under the favor of the recent arrangement, it controls with other medical schools. The Roosevelt Hospital, the Presbyterian, the St. Luke's, the Cancer—in all of which hospitals it holds a large share of the patronage—will enable the teachers to give the graduate most thorough training in the newer methods of medical research, and surgical technique, while the enlarged Sloan Maternity will afford opportunity unequalled for training in obstetrics. The University School and Bellevue will be obliged to follow in the footsteps of the P. and S., and herein perhaps we find the clue to the eagerness with which these latter schools entered into the arrangement whereby the Charity Hospitals were taken by force, without equity, from the profession at large. And yet, has not the University clinical material in sufficiency in the private hospitals its faculties have large representation in? And has it not an admirably conducted maternity service in what has been known as the Broome-street Dispensary? As for Bellevue, it seems to the unprejudiced as if the fourth division of the Bellevue Hospital, which supposedly represents the profession at large, were simply the nucleus of a post-graduate teaching-school, conducted in the direct interest of the Bellevue College. Under the circumstances, in case the College of Physicians and Surgeons does open a post-graduate school, neither the University nor Bellevue should find it difficult to do the same, without drawing upon the island hospitals or that in Harlem or near the Battery, which they have seized and yet do not know what to do with; for students will not go to a distance to secure clinical instruction when they can obtain it to better advantage within a stone's throw of the institution they resort to for the purpose of brushing up old knowledge and—acquiring new.

NOVEL WAY TO DONATE.—A commercial house in Buffalo has donated \$2500 to charitable institutions and hospitals of that city, on a plan that divides the total into allotments of \$1000, \$700, \$500, \$200, and \$100 respectively, and provides for their distribution by votes. Every purchase of 25c. worth or upward entitles the buyer to a vote, and the five successful institutions receive the amounts designated in order of their majority. Hospitals throughout the country might profit by the operation of a similar scheme without assuming the obligations that invariably attend the subscription plan.

GENERAL MEDICINE

Department Editors

WILLIAM CHARLES GUTH, M.D.

and

HENRY TURNER BROOKS, M.D.

Collaborators

ADOLPH ZEH, M.D., ADOLPH BARON, M.D., JOHN HOCH, M.D., WILLIAM VISSMAN, M.D., WILLIAM Y. FINCH, M.D., GEORGE W. BLANCHARD, M.D.

Conditions Under Which Anaërobic Organisms May Exist in the Presence of Oxygen.—KEDROWSKI (*Zeit. f. Hyg. u. Infectkh.*, XX, p. 349-376)

The author's observations show that anaërobic species (*clostridium butyricum*), which, under ordinary circumstances, do not grow on bouillon, gelatine, or agar-agar, will proliferate on these media when mixed with certain aërobic organisms—*i.e.*, prodigiosus. That the aërobic do not act chiefly by consuming the oxygen is proven by the fact that, if a stab culture of *sarcina flava* be sterilized by chloroform vapor and then inoculated with the bacillus butyricum, this organism grows. Hence, these aërobic must produce a substance that will support life of the anaërobic even in the presence of oxygen.

The Effect of Electricity on Healthy and Diseased Human Stomach.—GOLDSCHMIDT (*Deutsch. Arch. f. klin. Med.*, LVI, Nos. 3-4)

In the normal, direct application of rather strong faradic or galvanic currents has little, if any, effect upon the motor function of the organ, while the secretion is not affected. Direct application of electricity to the stomach when the disease is of nervous origin is an excellent remedy, and good results may also be expected when the malady is of organic origin. There is no appreciable difference in the effect of faradic or galvanic currents. However, the galvanic current (anode in the stomach) is preferable in painful affections, and the faradic in functional disturbances. In using the galvanic current, great care is demanded to avoid the caustic effect of too strong current.

On the Lethal Tendency and its Therapeutic Indications in Pulmonary and Cardiac Diseases.—THOMAS J. MAYS (*The Phila. Polyclinic*, V, No. 4)

Death does not always come directly through the organ which is primarily involved in disease, and therefore the author says it is of the greatest importance to learn the lethal tendency in every case of sickness.

In acute bronchitis, in capillary bronchitis, and in croupous and in catarrhal pneumonia the danger lies, not in the direction of the heart, but: (1) in the extensive accumulation of catarrhal and exudative material in the bronchial tubes and air-cells; and (2) in motor paralysis of the lungs. The therapeutic indications in the above diseases are first to get rid of the accumulation in the lungs, and the second is met by the use of strychnine, digitalis, etc., and concentrated nourishing foods.

The lethal danger in pulmonary phthisis is to be sought in the constitution rather than in the lungs. By building up the constitution by absolute rest, nourishing food, strychnine, etc., the aim in view is generally gained.

In mitral regurgitation and stenosis, owing to a

damming up of blood in the left auricle, pulmonary veins, and capillaries, the danger to life comes from the lungs. We should frequently examine the base of the lungs and endeavor to aid nature to overcome the obstruction in the cardio-pulmonary circulation. Especially should this be done in the aged. The therapeutic indications in such cases are met by digitalis, strychnine, quinine, and iron; counter-irritation over base of chest by means of mustard, croton oil, amber oil, or hot flaxseed, meal poultices. The hepatic and intestinal secretions should be looked after, and for this purpose, calomel, or some form of mercury, and hydrastin are to be recommended.

In aortic regurgitation, and also to some extent in aortic stenosis, the lethal tendency is principally in the line of pulmonary disease. The prevailing idea is that aortic disease is liable to terminate by sudden death; but the author, from actual experience, believes that this is a rare direct mode of termination in this disease. An explanation of the occurrence of partial stasis is given, showing how a pulmonary edema and congestion are established, which are marked by moist râles varying in size, thus showing how pulmonary disease can be brought about by aortic regurgitation when no discoverable lesion or murmur exists in the mitral valve. In aortic disease the therapeutic indications are fulfilled by judicious rest and exercise, digitalis in the early, and strychnine in the later, stages of the disease. Sodium salicylate, iron, and quinine are also of benefit, and when the lungs become seriously involved, rest becomes a great factor in the treatment.

A Study of the Physiology of the Stomach.—A. SCHUELE (*Berlin. klin. Woch.*, 1895. No. 50)

The patient upon whom the observations were made had been in the hospital some time and was treated for ischiatic trouble. In addition to this, his general condition, particularly his digestion, was looked into. Four hours after ingesting a test-meal consisting of 150 gme. of beefsteak, 100 gme. of potatoes, and 250 c.c. of white wine the total acidity was 66.90 per cent. Free hydrochloric acid varied from 0.15 to 0.24 per cent. in five tests. From four and one-half to six hours afterward the stomach was completely empty. These conditions correspond exactly to the normal.

I. At 7.45 p.m. patient received test-meal (as above) plus 1.0 gme. trional. After four hours, of which three and one-half were spent in sleep, expression. Amylaceous matter had entirely disappeared, and meat was well digested. There was a total acidity of 120 per cent., and free HCl 0.29 per cent.

II. At 7.45 test-meal without trional. After four hours, three of which were sleep, expression. Total acidity 127 per cent.; free HCl 0.24 per cent. (immediate examination by lamplight). On the following morning (eight hours after expression) the chyme had total acidity of 128 per cent.; free HCl was very questionable. Each of these experiments was repeated with about the same results.

A second series of experiments was made to ascertain the time required for digestion.

I. Test-meal (as above) plus 1.0 gme. trional was given at 8 p.m. After six hours (5½ sleep) patient expressed 10 c.c. of chyme, and upon washing out the stomach a considerable quantity of meat was obtained.

II. 8 p.m. Test-meal without trional. Six hours after (5 hours' sleep) there were 35 c.c. of chyme, of which the total acidity was 124 per cent., and free HCl 0.3 per cent.

III. Same as II. Six hours (5½ sleep) afterward 9 c.c. of chyme were expressed. Total acidity, 54 per cent.; free HCl, 0.15 per cent.

IV. Same as III. Expression of 20 c.c. chyme, with total acidity of 122 per cent.; free HCl, 0.27 per cent.

V. Same as III, excepting patient slept 5.45 hours out of the six hours; 25 cc. of chyme were expressed; total acidity, 130 per cent.; free HCl, 0.5 per cent.

Above all, the high amount of total acidity and hydrochloric acid is noteworthy. Before beginning the experiments the author expected to find a diminution of the secretory functions, as is common to all organ function during sleep. Contrary to this expectation, there was hyperacidity, which was evident toward the end of digestion (total acidity between 122 and 130 per cent., and free HCl as high as 0.3 per cent.)

That this result is no mere coincident is proved by the fact that, after experiments, the examination of the digestion during waking period produced about the normal; i.e., total acidity, 84 per cent.; free HCl, 0.24 per cent. Therefore, it will not be erroneous to say that, during sleep, digestion takes place with a greater acidity than during waking periods.

To ascertain whether sleep or rest in bed was accountable for the increased acidity. The same person was given the same test-meal and kept in bed four hours. At the end of the experiments total acidity was 100 per cent., and 82 per cent.; free HCl, 0.24, and 0.23 per cent. The author attributes the increased acidity to the slow propulsion of the chyme, which irritates the secreting parenchyma.

The diminution in the motility is another interesting result of the experiments. The organ usually completely relieves itself of a test-meal in six hours; the organ could not perform this function in the same manner during sleep. It is true the residue was not large; yet this small amount is noteworthy, because other experiments show that rest in bed without sleep accelerates digestion.

The author, therefore, recommends that those suffering with diseases of the stomach, particularly hyperacidity, be advised to lie down after meals, but under no condition to sleep.

Causal Relation Between Pulmonary Catarrh and Tuberculosis Due to Bacilli.—H. FROELICH (*Wien. med. Presse*, 1895, No. 50, p. 1900)

For 11 years the author observed a garrison of three infantry regiments, composed of between 4600 and 5200 men, with the object of determining the prevalence of pulmonary diseases, especially tuberculosis, and also whether the regiment having the largest number of cases of pulmonary catarrh and pneumonia had the largest number of cases of tuberculosis. During this time regiments A, B, and C, respectively, had 1976, 1679, and 1222 patients suffering with diseases of the respiratory organs. Of these A had 272, B 188, C 117 cases of pneumonia; A had 769, B 713, C 540 cases of pulmonary catarrh, while A had 31, B 33, C 38 cases of tuberculosis.

From this it is not apparent that there is a causal relation between pneumonia and pulmonary catarrh on the one hand and tuberculosis on the other. If, however, the insignificant difference in the number of cases of tuberculosis in the several regiments is to be considered, it may indicate that other diseases of the lungs rather impede infection with tuberculosis. At all events, these observations justify the conclusion that it is not yet proved that non-malignant diseases of the respiratory organs favor infection with tubercle bacilli.

NEUROLOGY AND PSYCHIATRY

Department Editor

PEARCE BAILEY, M.D.

Collaborators

ALBERT WARREN FERRIS, M.D., LEWIS A. CONNER, M.D., THOMAS PECK PROUT, M.D., and L. PIERCE CLARK, M.D.

Examinations of the Ulnar Symptom in the Insane.—GOEBEL (*Neurol. Centblt.*, 1895, No. 16, p. 718)

In 1894 BIERNACKI called attention to analgesia of the trunk of the ulnar as a symptom characteristic of locomotor ataxia. Shortly afterward CRAMER concluded that among the insane, with few exceptions, this symptom was limited to the subjects of general paralysis. The mode of testing is by pressure on the nerve in the intercondyloid notch at the elbow, and noting the effects as to pain or parasthesia in the distribution of the nerve.

GOEBEL finds a difference between men and women; 87 per cent. of the male cases of general paresis examined by him presented a double-sided ulnar analgesia. The symptom is not at all constant in females, and so with them cannot be utilized as a diagnostic aid. But among men suspected of general paresis the author regards it as a pathognomonic sign of great value. It may also be utilized for the detection of malingering. As ulnar analgesia is also frequently found in epileptics, its presence is useful for a diagnosis between the convulsions of epilepsy and those of hysteria.

The symptom is not, however, limited to general paresis and epilepsy; for it was found in 43 per cent. of the asylum inmates, exclusive of the general paralytics, examined by GOEBEL.

Case of General Analgesia with Symptoms of Sclerosis of the Pyramidal Tracts and of the Columns of Goll.—P. BAILEY (*Med. Rec.*, 1895, Vol. 48, No. 26)

A carpenter, 60 years of age. No heredity except facial tic in a parent, a venereal sore contracted in youth, not followed by secondaries. Excessive use of alcohol and tobacco. The first serious symptom came on 12 years ago, when his left leg became numb and paralyzed for a period of two weeks. Six years ago the right leg became paralyzed. He continued at his trade until about two years ago, when his hands became too uncertain to allow him to use the hammer. He would hit his fingers as often as the nail; but this caused him no pain, showing not only ataxia of the upper extremities, but also loss of sensibility to pain. At the same time it became necessary for him to use a cane, owing to ataxia and rigidity of his legs. There has been gradual loss of sexual power; bladder and rectal control unimpaired. The patient furnishes a history of slowly progressive loss of muscular power, of co-ordination and of sensibility to pain.

Physical examination negative. The patient is not at all of an emotional or neurasthenic type; no mental symptoms. A slight droop of left eyelid was present; pupils react to light and accommodation. The left undergoes a relative change in size from time to time; the optic disks are somewhat pale, but show no atrophy. Occasionally there is a slight twitching of the muscles supplied by right seventh nerve. The motor disturbances are similar to those met with in ataxic paraplegia, the most serious being

ataxia. With closed eyes, the patient can with difficulty indicate the position of his limbs. None of the muscles are atrophied, and all react to faradism. Romberg's symptom is well marked. Wrist, elbow, and knee jerks are active. No clonus. The abdominal and plantar reflexes do not respond to stimulation. His general tactile sensibility is but slightly impaired; heat and cold are readily differentiated.

There is a complete loss of sense of pain in the whole cutaneous surface, in the mucous membrane and conjunctiva, in muscles and joints. In no part of the body, from the soles of the feet to the top of the head, can pricking, cutting, or burning elicit any evidence of pains. Forcible crushing of muscles and rough hyper-extension of joints produce no sensation aside from that of contact and movement.

The diagnostic possibilities embrace a wholly functional disease—an organic disease upon which are superimposed functional sensory symptoms or a wholly organic disease. From the nature of the symptoms, the author is unwilling to admit the probability of the first and second hypotheses, but thinks more favorably of the third. The motor symptoms point to an interference of the conducting power of the motor tracts of the columns of Goll, and perhaps of the direct cerebellar tract. "The diagnosis of cases which have neither clinical counterparts nor pathological proof must be, at best, conjectural. All the motor symptoms point to structural change in the cerebro-spinal axis, and the assumption that the loss of sensibility to pain is, in some way, dependent upon an organic change should be given serious consideration."

The Functions of the Frontal Lobes of the Cerebrum.—L. BIANCHI (*Brain*, 1895, LXXII, p. 497)

When Professor BIANCHI, in 1888, began his researches upon this subject, the following were the hypotheses advanced:

1. The prefrontal lobe is the motor center of the eyes and head on the opposite side; and in consequence of the close relationship between the movements of these parts and attention, it is also the center for attention. (FERRIER.)

2. It is the center for the highest physical functions. Destruction of it involves a real decadence of psychical activity. (WUNDT, HITZIG, BIANCHI.)

3. It is part of the so-called "Fühlspähre," and as such is the motor center of the dorsal muscles. Its highest development is not correlated with that of intellect, but with that of the dorsal musculature. (MUNK, LUCIANI.)

BIANCHI's experiments were made on monkeys and dogs, after the method of free cranial openings and exposure of the lobes, under rigorous asepsis. The symptoms of the first few days were not regarded, as being partly accounted for by the extensive mutilation. But after the first week observation was continued for several months or even years. As his chief guide BIANCHI took the electrical reactions of the frontal region rather than the sulci, for the reasons that the sulci never demarcate the physiological areas of the cortex, and the experimenter cannot always strictly follow their indications. Twelve monkeys and six dogs were used.

Unilateral extirpation of the frontal lobe produced the following results: (a) During the first and second weeks rotatory movements toward the mutilated side, without accompanying oculo-motor disturbance. These symptoms do not always occur, occur less frequently in dogs, and rarely last beyond the second week. (b) Paresis of the opposite arm not evident in associated movements, but obvious in

more delicate movements, when the animal moves the arm on the same side as the mutilation. In some subjects this paresis is slight; in all it disappears in three weeks or sooner. (c) Tactile sensibility remained normal except in one dog, in whose opposite limb it was temporarily diminished, and in a monkey who exhibited hyperesthesia in opposite ear and side of face. (d) In one monkey diminution of hearing resulted on the opposite side. (e) Taste and smell remained unimpaired, apparently. (f) Visual disturbances follow. With the opposite eye closed the mutilated animal can see an object only when nearly in line with the visual axis of the eye on the side of the mutilation, this eye having been focused on something stationary. (g) No perceptible differences resulted in the behavior.

BIANCHI concludes that MUNK is in error, for paralysis of the trunk-muscles does not always occur, especially when the incision falls accurately on the frontal lobes, and is but temporary. He sees no connection between such paralysis and alterations of temper. BIANCHI agrees with SCHÄFER and HORSLEY in attributing to the internal aspect of the marginal gyrus the function assigned by MUNK to the extensive frontal lobes.

BIANCHI's results point to more than a simple defect of attention correlated as much with a paresis of the ocular and cervical muscles as with a non-existing cause. After the paralysis departs the deep psychical changes persist. The frontal lobes are not centers of inhibition. FERRIER's identification of certain muscular co-ordinations with the essence of attention causes surprise, for he is thus led to spread over the whole frontal area the motor centers of the head and neck, in order to assign to it the functions of cortical seat of attention. BIANCHI denies that there is any center of inhibition, any faculty of attention. Inhibition depends on a general psycho-physiological process involving the whole nervous system. In its strict sense, interference bears no likeness to inhibition; there is rather an afflux of nerve-waves into a region excited by some definite stimulus or psychical representation, which afflux weakens the aptitude of other regions to fulfill its function. Each respective cortical area becomes in its turn an inhibiting center for the others. When the mind is busy with a scientific problem, one becomes deaf and blind, as it were. If then the auditory or visual centers are strongly excited by a voice or an image, and a perception aroused, the flow of ideas is arrested or weakened as long as the psychical disturbance persists in another portion of the brain. Thought has in most men an inhibitory power, owing to the fact that obstructions are resultants of very numerous psychical elementary factors, and determine the same dynamo-molecular processes in the innumerable nerve elements which co-operate in the formation of the concept.

BIANCHI's hypothesis is that the frontal lobes are the seat of co-ordination and fusion of the incoming and outgoing products of the several sensory and motor areas of the cortex. As the nervous waves from peripheral organs of reception (retinal rods, tactile end-organs) are transmitted from neurons of the first order to neurons of the second (mesocephalon, thalamus), and from these again to neurons of the third order (cortex), thus he supposes new impulses travel from these to the frontal neurons of the highest order. The frontal lobes would thus sum up into series the products of the sensori-motor regions as well as emotive states accompanying perceptions, forming by fusion the psychical tone of the individual.

SURGERY

OPHTHALMOLOGY, OTOLOGY, RHINOLOGY,
LARYNGOLOGY, DERMATOLOGY, ORTHO-
PEDIC AND GENITO-URINARY SURGERY

Department Editor

SAMUEL LLOYD, M.D.

GENERAL

In charge of B. FARQUHAR CURTIS, M.D., WILLIAM B. COLEY, M.D., E. M. FOOTE, M.D.

Poisoning by External Use of Subnitrate of Bismuth.—GAUCHER (*Sem. méd.*, Dec. 4, 1895)

GAUCHER reports four cases in which toxic symptoms were observed after dressing ulcers or burns with a subnitrate of bismuth in which no arsenic or lead could be found by chemical analysis. The symptoms were those of stomatitis, with a dark line on the gums resembling the lead line, and discolored spots on the skin of the cheek. As they disappeared promptly when the use of the drug was discontinued, there could be no doubt as to the cause. In the discussion HAYEM remarked on the general innocuousness of the drug and thought it probable the bismuth had undergone some change in the secretions or in the dressings in these cases.

Suggestions in Regard to the Operations for the Cure of Inguinal and Femoral Hernia.—

CABOT, Boston (*Boston Med. and Surg. Jour.*, CXXXIII, No. 21, p. 510)

The success of hernia operations depends upon the nice adjustment of the parts to stand a strain which has already once overcome the barriers offered by nature. Niceties of technique make or mar this success. The author suggests that in inguinal hernia it would seem better to make the new inguinal canal run upward and outward, so that the downward pressure of the bowels would act at right angles to its axis, and so would tend to force its walls together. In order to do this he slits the aponeurosis of the external oblique muscle well up toward the anterior superior spine of the ileum, exactly as in Bassini's operation, then ties all sutures, and cuts off the sac on a level with the peritoneal surfaces, then sutures the internal oblique and transversalis fascia on the inner side and Poupart's ligament on the outer side. These stitches may include the edges of the slit in the external oblique aponeurosis, thus closing the old inguinal canal. Finally close the upper remaining part of the slit in the external oblique aponeurosis with a continuous buried suture, which also includes the upper edge of Poupart's ligament. This closure should be done from below upward, and the spermatic cord should be brought through at the highest point that it can be made to reach with moderate traction. Usually this is about the point where it would perforate in Halsted's method. In femoral hernia the difficulties attending the radical cure arise from the shortness of the canal, the proximity of the femoral vein, and from the fact that it is made up of tendinous structures that do not readily adhere by a permanent union when sutured. The healing together of the fibrous walls of the canal is made more difficult by the necessary tension of the stitches pulling upon rigid portions of the fascia and ligaments. The author suggests that before applying the sutures a semi-circular incision should be made through the fascia lata, just beneath the saphenous opening, the

saphenous vein having been previously tied, and cut away. The fascia can then be separated beneath, so that the lower wall of the canal can be readily drawn upward almost involving portions of Poupart's ligament, where it can be held with buried sutures, without the least tension, and the whole canal thereby tightly closed.

The Prevention of Hernia After Laparotomy.—(*Wien. kl. Rundschau*, 1895, p. 569)

In a discussion at the Congress of the Gesellschaft für Geburtshilfe und Gynäkologie in Vienna, WINTER stated that a systematic examination of the frequency of hernia after laparotomy at his clinic was: in 1889, 30 per cent.; in 1890, 29 per cent.; and in 1891, 23 per cent. While the first necessity in the prevention of these herniæ is primary union of the abdominal wound, it is also important to suture the fascia exactly instead of including all layers in one suture. He employed catgut sutures. With this improved technique, the herniæ for 1894 were reduced to 8 per cent., and among these only the smallest size was observed. He dressed the wound with collodion, and dispensed with the binder.

ZWEIFEL, WINCKEL, and CHROBAK all used the same three-tier suture with good result. DÜHRSEN and MARTIN still favored the single suture. MÜLLER and ZIEGENSPECK used the three-tier suture, but avoided the linea alba, incising through the rectus muscle.

GENITO-URINARY

In charge of GEORGE KNOWLES SWINBURNE, M.D.

Dislocation of the Penis Following Circumcision.—BAUMGARTEN (*Deut. med. Wochenschr.*, 1895, p. 715)

BAUMGARTEN reports a case of dislocation of the penis in a boy 11 years of age, which was said to have taken place in infancy during the act of circumcision. The organ lay under the skin at the junction of the scrotum, groin, and thigh. Urination occurred with difficulty and was accompanied by the formation of a small urinary cyst under the skin, which was evacuated by pressure with the hand. The penis was dissected out, and covered by flaps from the scrotum and pubis and by the remains of the foreskin. He then relates the other five cases known in surgical literature, and adds two unpublished cases following accidents during circumcision—an etiological factor hitherto not recorded. In one of these, a midwife attempted to control hemorrhage by pressure, and the penis slipped back under the skin of the pubis, but was promptly reduced by manipulation. In the other a plastic operation had to be resorted to.

Prostatectomy.—Dr. S. ALEXANDER (*N. Y. Med. Jour.*, 1896, p. 171)

Dr. A. first described his method of prostatectomy in May, 1894, before the American Association of G.-U. Surgeons in Washington, his first operation being performed in January, 1894. In April, 1894, NICHOLL, of Glasgow, described a very similar method, differing from that of A. in that N. does not open the urethra and drains through the suprapubic wound.

A.'s method is as follows: Where possible the patient is prepared before operation by administration of cathartic at night and a large rectal enema in the morning. Before operation bladder is washed out with a solution of nitrate of silver (1 6000). Patient is anesthetized, the bladder emptied and then

filled with 10 oz. of Thiersch's solution. Rectal bag is not used. The bladder is exposed by suprapubic cut, and two retraction sutures passed through bladder wall. An opening is made into bladder large enough to insert two fingers, and the cavity is explored; then the wound is covered with gauze, patient is placed in lithotomy position, a staff introduced into bladder and held by assistant. The membranous urethra is laid open from bulb to apex of prostate by median incision. The staff is withdrawn and gauze removed from suprapubic wound. The operator then disinfects his hands and passes two fingers of left hand into bladder and presses the prostate down into perineum, while with the right forefinger in the perineal wound he breaks into the outer sheath of prostate and shells out the entire gland.

The wound is flushed with (1:5000) sol. of bi-chloride, and a perineal tube passed into bladder, a rubber drainage tube is inserted into bladder through the suprapubic opening and the upper portion of this wound is closed by sutures. The bladder is flushed out daily by injecting fluid into the upper tube, allowing it to drain from the perineal tube. The suprapubic tube is removed on the sixth day, the perineal tube on the ninth day, and the bladder washed by catheter through the perineal wound for a few days. After the second week a full-sized sound is passed and repeated every fifth day till the perineal wound closes.

A. claims: 1, less hemorrhage; 2, less danger of septic absorption, because mucous membrane of bladder and prostatic urethra is kept intact; 3, best possible drainage.

Two patients were exhibited at reading of paper (before Soc. of Alumni of Belle. Hosp.), which at time of operation were unpromising. In one there were still 7 dr. of residual urine, in the other the bladder emptied itself completely.

ORTHOPEDIC

In charge of T. HALSTED MYERS, M.D.

Achillodynia, or Achillo-bursitis Anterior.—

RÖSSLER (*Deut. Zeitsch. f. Chir.*, XLII, No. 3)

RÖSSLER reviews the literature on this subject and gives the details of ten cases. The pain in these cases is felt at the insertion of the tendo-Achillis when the patient stands or walks much, but diminishes or disappears when he sits or lies down. Different views are held as to the etiology of the condition. In these cases it was associated with over-exercise, uric-acid diathesis, flat-foot, polyarticular rheumatism, or gonorrhea. ROSENTHAL thought the pain due to the presence of a small neuroma between the tendo-Achillis and the bone opposite to it. SCHÜLLER ascribed it to an inflammation of the bursa under the tendon, just above its insertion point, and this is the view adopted by RÖSSLER. PITHA suggested a partial evulsion of the tendon or a partial rupture of its fibers as the cause. RAYNAL and KIRMISSON describe a cellulitis of the tendon, and think that explains the condition. FRANKE ascribes to influenza a "fascitis plantaris" affecting the posterior and inner part of the sole, and says it causes local pain in standing and walking, the fascia feels as hard as a board, and the induration is sharply limited. An inflammation of MICHALOVIEZ's "bursa subcutanea calcarei" also gives rise to similar symptoms. HEINECKE describes a bursa 1 to 1½ in. above the insertion of the tendo-Achillis, between that tendon and the skin, which may become inflamed and so obscure the diagnosis. KEIBY

has found gouty deposits in this bursa. Pyogenic or tubercular infection of any of these bursæ may also occur.

The pathology of the condition, therefore, varies as has been suggested. RÖSSLER's cases seemed to prove that most cases are due to an inflammation of the bursa in front of the tendo-Achillis and just above its insertion. Fig. 1 will show the normal appearance of the bursa, while Figs. 2 and 3 show a condition which RÖSSLER thinks analogous to osteitis deformans, because atrophy of one part will be

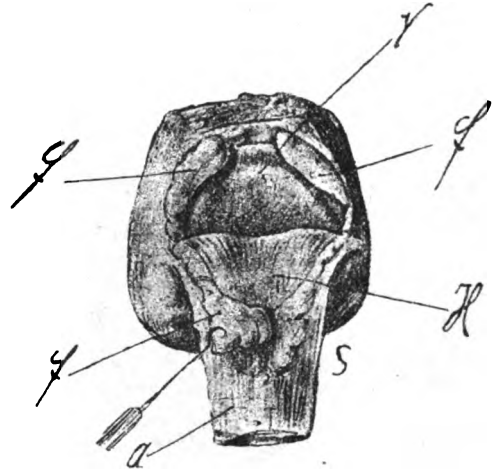


FIG. 1. NORMAL BURSA

a, TENDON DIVIDED AND DRAWN DOWNWARD. f, FAT LOBULES OVERHANGING THE EDGES OF THE BURSA. v, ANTERIOR WALL. h, POSTERIOR WALL

found associated with hypertrophy of another, and there will be increase of the effusion without any real inflammatory symptoms.

RÖSSLER examined some 225 of these bursæ, and found that the anterior wall was seldom perfectly normal. It was often thickened where it was rubbed upon by the tendo-Achillis. Here there was persistent hypertrophy with hyaline degeneration, the endothelium also was absent in places and hypertrophied elsewhere. The posterior wall, composed of endothelium, peritendineum, and tendon, was less sensitive and less liable to show changes in slight

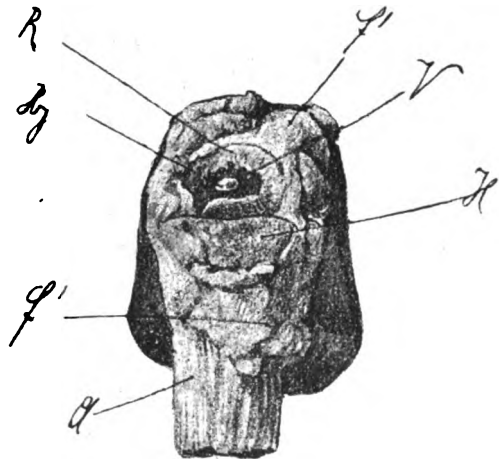


FIG. 2. BURSITIS DEFORMANS

R, HYPERTROPHIED EDGE OF THE BURSA. Hy, EXOSTOSIS, SURROUNDED BY ATROPHIED SOFT PARTS. H, POSTERIOR WALL, HERE VERY ROUGH. f, HYPERTROPHY OF FATTY TISSUE ABOUT BURSA

cases. The upper and lateral walls, with their layer of endothelium thinly covered by connective tissue, reaching from the tendon sheath to the os calcis, were often pressed inward by a hypertrophy of the fatty tissue normally in this location, so that a fatty lobule may partly fill the cavity of the sac. RÖSSLER considered these changes the result of a con-

stant long-continued rubbing and irritation of the parts, and comparable to external callosities. Other early cases showed a thickened periosteum, and a vascular peritendineum. The walls of the blood-vessels were thickened and surrounded by a cell infiltration. If this irritation was increased, as by a change from a sedentary to an active life, there might arise more acute symptoms with effusion in the sac. Exostoses around the edges of the bursa form periostitis and infiltration with lime salts.

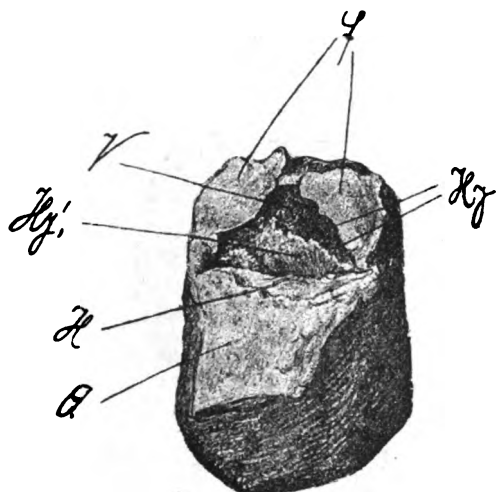


FIG. 3. BURSTITIS DEFORMANS
Hy, SMALL EXOSTOSES. Hy', LARGE EXOSTOSIS. A, GREAT DEVELOPMENT OF FAT LOBULES

Suppuration might occur from a traumatism or infection through an adjacent wound, and then the bursa may become sacculated or obliterated entirely. See Fig. 4.

A chronic effusion into this bursa is very rare, and not one of the 225 cases examined deserved the name of hygroma. The diagnosis of this condition is not always easy. A relaxed tendo-Achillis can give the sensation of fluctuation in the bursa. On the other hand a painful inflammation of the bursa may exist without effusion, or at least any which is appreciable to touch. There is generally, however, a small tender swelling which gives the impression that the tendon is thickened, or the bone itself hypertrophied on each side

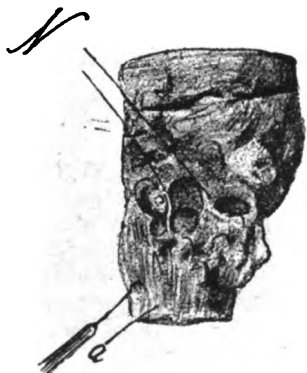


FIG. 4. RESULT OF ACUTE INFLAMMATION
a, TENDON DRAWN DOWN AND BACKWARD. N, CICATRICAL GROWTHS STRETCHING ACROSS BURSA

of the point of insertion. A tubercular osteitis of the calcaneum occasionally discharges posteriorly and may infect this bursa. Pain in the sole of the heel is sometimes present, and this may radiate from the periostitis about the Achilles bursa, or be due to an involvement of the bursa subcutanea calcanei, or the fascia and connective tissue in this locality. RÖSSLER considers that the frequent occurrence of the symptoms on both feet indicates bursitis rather

than periostitis. The treatment in acute cases is antiphlogistic; in chronic cases compression, especially by moist sponges, and massage are recommended. If conservative treatment is too long resisted the bursa should be freely opened on the outside of the tendon, scraped out with a sharp spoon, and tamponed with iodoform gauze. MOSETIG cured a case by injections. Resorbents are unsatisfactory.

SCHÜLLER finds that pronation of the foot and flat-foot sometimes occur, in the effort of the patient to avoid all painful pressure on the bursa. RÖSSLER considers Achillo-bursitis anterior the best name for this affection, and believes it to be much more common than is generally supposed.

NOSE AND THROAT

In charge of JAMES E. NEWCOMB, M.D.

Railroad Coryza.—B. FRÄNKEL (*Arch. f. Lar.*, III, No. 3, 1895, p. 383)

The author endeavors to make a special variety of nasal inflammation from the specific cause of railroad riding. The exciting agent is the inevitable dust. F. admits, however, that the sufferer must have a nervous predisposition, especially a hypersensibility of the nasal mucosa.

The condition is therefore but one variety of the familiar vaso-motor rhinitis—analogueous to "hay fever," so called, and hardly worthy, in our judgment, of being endowed with a special name.

Cornification of the Epithelium in Waldeyer's Ring and its Relation to Pharyngo-mycosis.—

LIEBENMANN (*Arch. f. Laryngol.*, II, No. 3, 1895, p. 365)

The object of this paper (the title of which we have considerably abbreviated) is to show that the so-called mycosis of the pharynx is in reality no mycosis at all, and that the process ought rather to be grouped under the head of keratosis of the mucous membranes.

In some instances he removed the deposits with forceps, while in others he removed the tonsils containing them, and submitted both to microscopical examination. He found the tonsils poor in lymphoid tissue as compared with their amount of connective tissue. The surface epithelium was intact, but the crypts all showed an enormous thickening of their epithelial lining and there was no evidence of inflammatory change in their vicinity.

The leptothrix filaments are rarely lacking in hyperkeratosis of the adenoid crypts. They are exactly identical with the leptothrix buccalis, but the wall of the crypt does not inclose the micro-organism, and the parasite ought to be regarded as merely accessory. The writer proposes, therefore, to abandon the names of pharyngo-mycosis leptothrica and of benign mycosis, and to substitute therefor "lacunar hyperkeratosis."

He cites well-known analogous processes in dermatology, the hyperkeratosis of the agminated glands and of the hair follicles. He shows the importance of the lacunar hyperkeratosis in its relation to the penetration of pathogenic microbes, and in particular to the etiology of tuberculosis, and submucous inflammations of the throat. He concludes his observations by some remarks relative to keratoses he has observed in the vicinity of the tonsils, and which frequently lead to carcinomatous inflammations.

OBSTETRICS; GYNECOLOGY; PEDIATRICS

Department Editor

THOMAS S. SOUTHWORTH, M.D.

Collaborators

GEORGE G. WARD, Jr., M.D., GEORGE R. WHITE, M.D.,
EDWARD N. LIELL, M.D., WILLIAM B. NOYES, M.D.

Gaertner's Fatty Milk for Infant Feeding.— GEORGE W. MACCRACKEN (*Codex Medicus*, Vol. II, No. 3)

If milk is diluted by the addition of two parts of water to one part of milk, we have the percentage of albumenoids 1.3 per cent., approximating the standard of normal mother's milk, instead of 40 per cent. in undiluted cow's milk; but it is necessary to add fat in some form. This may be done by adding cream, but there is one objection, which is, that the cream and milk will never mix perfectly, because the fat globules coalesce after the cream has once been separated. Cream obtained by a centrifugal separator, however, retains its original fine division of the fat, with no coalescing of fat globules. There is a freedom from particles of dung, dust, and other dirt which are driven to the side of the drum and escape with the refuse. For this reason a centrifugal cream is to be highly recommended. These foreign particles are probably the chief vehicles for introducing the microbes which set up putrefactive changes in milk.

Constipation or regularity of the bowels of a baby depends in great measure upon the amount of fat in the milk. Four per cent. is a proper average for fat, whether in breast or prepared cow's milk. There should be from 5 to 7 per cent. of sugar of milk. Milk of different proportions should be given at each successive month to a bottle-fed baby, to follow the normal changes in composition of breast milk.

A Case of Prolonged Gestation.—H. SZASZY (*Gyógyászat*, 1894, No. 39; Abstr. in *Monatsch. f. Geburt. u. Gyn.*, 1896, XI, No. 1, p. 53)

Reckoning from the cessation of the last menses, the first feeling of life, and the objective signs, the author reports a case in which gestation lasted 330 days. The child was normally developed, and 49 ctm. long!

External vs. Internal Examinations in Obstetrics.

—E. A. HARRIS (*Southwest. Med. Rec.* 1896, I, p. 1)

As a method of ascertaining fetal position, abdominal palpation is strongly advocated. Auscultation and pelvimetry are mentioned as valuable adjuncts. A description of Leopold's method, as taught by Dr. ROSENBERG, of New York, is entered into as follows:

The woman lies on her back, legs extended, the physician sitting at the bedside facing patient. First, he places both hands upon abdomen below umbilicus, palmar surface downward, finger tips meeting over abdomen. With gentle pressure the hands are carried over the fundus, teaching us height of fundus, size of uterus, and whether a transverse presentation exists.

In the second manipulation, either right or left hand is placed just above symphysis, fingers separated from thumb as far as possible; with gentle pressure the hand is forced downward and backward, the intervening tissues being firmly grasped between thumb and second finger; the head being round and hard

can be readily distinguished from the breech, the latter being softer and more irregular. Next, the hands are placed at each side of the uterus, and, making pressure, one hand meets with more resistance than the other—this corresponds to the back; should the latter not be felt on either side, nor in the anterior median line, by exclusion it may be taken for granted that it lies against the spinal column of the mother.

Should labor be advanced, or the head have descended low in the pelvis, the attendant stands at the side of the patient facing the feet of the latter; the presenting part can then be readily made out by pressing the finger tips of both hands downward and backward immediately above the symphysis.

[As a means for differential diagnosis of the presentation and fetal position, more especially preceding labor, abdominal palpation, aided by auscultation and possibly pelvimetry, is a marked advance upon and far preferable to vaginal examination. In fact, properly carried out they render it possible oftentimes to dispense entirely with external examination.—ED.]

Treatment of Ruptured Extra-uterine Pregnancy by Vaginal Incision.—R. CONDAMIN (*Lyon méd.*, 1894, Nov. 4; *Centralbl. f. Gynäkol.*, No. 4, 1896, p. 112)

The author has very optimistic views regarding the expectant treatment of ruptured extra-uterine pregnancy. In cases that are seen before the fourth month he advises against a laparotomy, but recommends the method of Laroyenne, which consists in waiting until the woman has recovered somewhat from collapse and the blood has been walled off from the peritoneal cavity—which usually takes place in about two weeks—and then making an opening from the vagina through which the blood clots may be wiped out and the ruptured tube drawn out and excised. The wound is packed with sponges and afterward with iodoform gauze. Hematocoeles reaching as high as the umbilicus, closed remarkably rapidly under this method of treatment.

[This recommendation is not in accord with the practice of recognized experts, chiefly since in intra-peritoneal rupture the woman is not out of danger until the bleeding point has been tied in accordance with surgical rule.—ED.]

A Case of Extra-uterine Pregnancy after Vaginal Hysterectomy.—P. WENDLER, Berlin (*Monatschr. f. Geb. u. Gynäkol.*, 1895; *Centralbl. f. Gynäkol.*, No. 4, 1896, p. 11)

WENDLER describes what he considers a unique case of pregnancy occurring after hysterectomy. At the operation the right ovary was not removed and the tube was drawn down into the vagina. Menstrual molimina had appeared every month after the operation and their cessation had led to an examination. A six to eight weeks old fetus was found occupying the vaginal end of the tube. The tube was dilated and its contents, consisting of fetal membranes and chorionic villi, were removed by a curette.

Burns in Children.—HARRY FENWICK and H. L. BARNARD (*Brit. Med. Journ.*, December 7, 1895)

The following plan of treatment is followed for burns in the London Hospital. The child is carefully wrapped in a blanket without being undressed, and hot water bottles applied to keep the body warm.

To minimize shock from pain, tincture of opium (4-5 min. B. P. for a child two to three years old),

with about 2 dr. of brandy, should be given and repeated in an hour, if necessary.

When the patient awakes one burned part after another is rapidly exposed and dressed with zinc ointment and cotton wool, and the blanket once more wrapped about the body. The dressings are changed in four days, when suppuration commences, and preparation for the inevitable pain should be made by giving tincture of opium in doses of 2-3 mins. B. P. every fourth hour to induce sleep. Thirty mins. of brandy are given every hour, with as much food as circumstances will allow after the first morning.

Diarrhea is combatted from its very inception by the following prescription:

Bismuth Carbonate	10 grn.
Wine of Ipecac	3 min.
Tincture of Opium, B. P.	3 min.
Mucilage	15 min.
Dill. Water	2 dr.
Repeated every fourth hour.	

The Value of Credé's Method in the Prevention of Ophthalmorrhœa Neonatorum.—R. KÖSTLIN (Halle) (*Arch. für Gynäkol.*, L, No. 2, p. 257)

The author has collected elaborate statistics from the large clinics of Europe and America showing the prevalence of ophthalmorrhœa neonatorum before and after the use of Credé's method of dropping 2 per cent. solution of nitrate of silver into the conjunctival sac of new-born babies.

Without prophylactic treatment ophthalmorrhœa was present in from 3 to 50 per cent. of the cases confined in the various clinics, the average being about 10 per cent. Since the introduction of Credé's method, 24,724 cases show that the percentage has fallen to 0.655.

Various attempts have been made to find something to supplant nitrate of silver. Carbolic, which was first used, was discarded on account of bad results.

Bichloride of mercury has been used in something over 2000 cases, and gives results as good or better than Credé's method, but has the disadvantage of causing considerable irritation. STRATZ reports 0.43 per cent. of ophthalmorrhœa among 460 cases, while catarrh was present in 1.8 per cent., and irritation in 18.3 per cent.

Irrigation with sterilized water gives results less satisfactory than either nitrate of silver or bichloride of mercury, and the danger of injuring the eye is quite as great as in either of the other methods. HOFFMEYER reports one case of severe corneal ulcer from washing the eye with water.

Trichloride of iodine has been tried in several hundred cases, but gives results even less satisfactory than any of the above methods.

The author thinks that silver nitrate gives the best results of all the methods yet tried, and that it has been used in cases enough to establish its value beyond a doubt. It is so easy of application and harmless in its action that it may be used as a routine by midwives.

Regarding the time of infection, he thinks it takes place during the passage of the head through the parturient canal, and not from material adhering to the eyelids or introduced into the eyes by water during the first bath, and supports his opinion by reporting several cases of prolonged labor in which children were born with well-established ophthalmorrhœa. Any method which simply cleans or disinfects the eyelids at the time of birth is not scientific, and is bound to give poor results.

The disadvantages of Credé's method are very

unimportant. Corneal affections are not observed, and irritation is seen less often than with other methods. The eyes are not rendered especially liable to a late infection, and when a late infection does occur, it usually means that the infection was already present in the eyes, but development of the germs was retarded by the silver nitrate.

Prophylaxis of Ophthalmia Neonatorum.—BUDEN, Paris (*Prog. méd.*, 1895, No. 3; *Centralbl. f. Gynäkol.*, No. 4, 1896, p. 98)

The author uses Credé's method only, making the silver-nitrate solution 1 to 150 instead of the usual strength. Among 2004 children treated only 2 had real purulent ophthalmia, 7 had a light form of catarrh.

This weak solution can be trusted to midwives.

Experimental Investigations on the Utility of Different Uterine Catheters.—ROESING (*Centralbl. f. Gynäkol.*, 1896, No. 2; abstr. from *Archiv f. Gynäkol.*, XLIX, No. 2)

The author carried out a series of experiments on a number of extirpated uteri, which he injected first with potassium-ferrocyanide solution and afterward with liquor ferri sesquichloratis; the coloration showed to what extent the liquid touched the endometrium. A number of different catheters were used; and it was found that the better the catheter was adapted to facilitate the return flow, and thus avoid forcing liquid into the tubes, the less efficient it was in washing the endometrium. The surest way of reaching the entire mucous membrane was by the application of the medicines by means of Playfair's applicators. It is probable, however, that more of the mucous membrane is reached in an extirpated uterus than in a living subject.

Gonorrhea in Pregnancy, Labor, and the Puerperium.—FEHLING, of Halle (*Wien. klin. Rundsch.*, No. 51, 1895, p. 813; from *Münch. med. Wochens.*, No. 49 and 50, 1895)

The author refers to the works of BUM and WERTHEIM, which have given many new conceptions of gonorrhea and its manifestations during pregnancy. WERTHEIM has shown that it is possible for a man affected with old latent gonorrhea to give the same to his wife, and in turn receive a new infection from her.

In pregnant women with gonorrhea, vulvitis is very common, and the parts are often covered with pointed condylomata. It is still a mooted question whether gonorrheal vaginitis exists of itself, or whether it is kept up by discharge from an infected cervix.

Gonorrheal salpingitis and parametritis frequently develop during pregnancy, while metritis has never been observed. The occurrence of interstitial endometritis has not been definitely determined, but it is supposed that it is the cause of frequent abortions in gonorrheal women.

Treatment consists of abstinence from sexual intercourse, and applications of antiseptics to the vagina. Douches are not to be recommended.

During labor vaginal examinations should not be made, or made as infrequently as possible.

The eyes of the child should be cleansed thoroughly and treated by Credé's method.

According to KRÖNIG some of the cases of fever in gonorrheal women are due to auto-infection from the parturient canal, but this question is still in dispute.

Should puerperal fever develop, the treatment is the same as for fever in non-gonorrheal women; namely, absolute rest, and avoidance of local treatment.

SOCIETY MEETINGS

NEW YORK COUNTY MEDICAL ASSOCIATION

Stated Meeting, March 16, 1896

JOSEPH E. JANVRIN, M.D., Chairman

Obstetrics in General Literature.—Prof. THEOPHILUS PARVIN, of Philadelphia, delivered an address on this subject, with the object, as he said, of demonstrating that if the physician would take “an occasional excursion in the borderland of professional literature” these “rambles would divert the mind from the cares and anxieties of professional life.” In his opinion the best models of literary style were rarely to be found among doctors; it was best for the medical writer to seek a good style outside of medical literature. Such culture was valuable as furnishing a wealth of illustration which would prove useful in both reading and speaking. Dr. PARVIN then quoted freely from the Bible, as well as from secular writings, to show the various curious opinions that had been entertained in ages past regarding many topics of interest to the obstetrician. In doing this, he presented to his audience fragments of many literary gems.

Dr. S. B. W. McLEOD, in rising to move a vote of thanks to Prof. PARVIN, said that the writings of Dr. JOHN D. BECK, the late Dr. FORDYCE BARKER, and of Dr. PARVIN himself conclusively proved that the medical profession was not without its literary lights.

Syringing in Lachrymal Disease.—Dr. WILLIAM H. BATES read a paper on this subject. He said that the method of syringing for the treatment of lachrymal disease was not only painless, but effective. In cases suitable for this treatment the swelling, redness, and pain subsided in a few days. In chronic cases benefit was felt after the first treatment. The treatment was applicable to cases of acute catarrhal and acute purulent inflammation of the sac, phlegmonous inflammation of the sac, blennorrhea of the lachrymal passage, and lachrymal fistula. It had failed to cure some cases of syphilitic and inflammatory stricture and some catarrhal cases. The reason syringing was so effective was that not only was septic material washed away, but, on the subsidence of the inflammation of the mucous membrane, the duct opened and drainage was established. The syringe he employed was an ordinary eye-dropper, with a very fine tip bent at right-angles to the stem. The tip of this instrument was usually inserted in the lower punctum. Occasionally, where large quantities of fluid must be used, a piston syringe would be required. A glass syringe was not only clean, but it enabled the operator to see whether or not the fluid actually entered the lachrymal canal. When solutions of nitrate of silver were used, they sometimes obstructed the tip of the syringe. When this occurred the obstruction could be easily removed by immersing the tip in a solution of iodide of potassium. To make the injection into the lachrymal sac, the operator sits in front of the patient, and light is reflected on the part by a mirror. The patient looks upward and outward, and a piece of cotton is placed over the semi-lunar fold and held there by the forefinger with slight pressure against the upper punctum. The thumb everts the lid and exposes the punctum. The tip of the syringe is then inserted into the punctum, and the syringe is held parallel to the conjunctiva. In some cases there is a tremulous motion of the lids, which makes it difficult to insert and keep the tip of the syringe

in place. Cocaine does not always help us with very nervous patients—an appeal to their self-control often accomplishes more. In some cases it might be easier to make the injection through the upper punctum. The syringing should be continued until the fluid came away clear, and the quantity used might be as much as a pint. Chronic cases usually required several months for a cure. The speaker said he had used simple water more than any other fluid for this syringing, although sometimes a little salt had been dissolved in the water to make it less irritating. Experiments had been made with various oils, but all of them caused irritation, and were found to have no advantage over water. In exceptional cases astringents were useful, the strength varying from 5 grn. to the ounce up to a saturated solution in a few cases. As a rule, the weaker solutions were more satisfactory. It could not be demonstrated that antiseptic solutions were any better than ordinary water—indeed, the antiseptic solutions irritated the parts, and, by causing swelling of the mucous membrane, obstructed drainage. The mere fact of being able to thoroughly syringe out the passage proved the absence of a stricture. In the treatment of these cases he had found it necessary to use the water often and in large quantities. To have the water forced under the eyelids was a disagreeable accident, but no harm had been observed from it. Where there was much bleeding after the operation, or after probing, it was much more easily controlled by peroxide of hydrogen than by hot water.

In conclusion, he said that he considered this a valuable method of treatment, and one that should be tried in all cases. Acute cases were often promptly relieved by the syringing, and cases requiring operation and probing might also need syringing to bring about a cure.

Dr. H. S. OPPENHEIMER said it was one of the opprobria of ophthalmology that so many cases of lachrymal trouble were uncured. In his hands it had been rare for a case to recover in so short a time as two weeks. We should differentiate our cases carefully. Those occurring in young children were usually seen near the outset, and these ordinarily recovered completely and promptly. The same might be said of other acute cases coming to us. In cases of dacryocystitis it was impossible to render the sac aseptic by injections. The requisites for a free flow of tears into the nose were: (1) That the lids be closed tightly; (2) that the canaliculus be open and in apposition with the globe; and (3) that in closing these lids, the orbicularis muscles pull forward the lachrymal sac and open it, producing more or less aspiration. The lachrymal sac being elastic, it would, by its own contractility, press the tears down the nasal duct, if that duct were open. A consideration of these various factors would show how the treatment must vary in different cases, depending upon which element was at fault. In chronic cases the elasticity of the sac was impaired. It was evident, therefore, that one plan of treatment could not be applied successfully to all these cases. Again, there was frequently an obstruction at the lower portion of the nasal duct, which might not be removed by syringing. To treat dacryocystitis without searching for the difficulty in the nose was not doing one's whole duty. The simple operation of probing the canal was one which required unusual care and delicacy of touch. Syringing of the lachrymal sac simply meant, to him, cleanliness. For cases of blennorrhea of this sac he employed injections of strong solutions of nitrate of silver. For making such applications he preferred

to use the small metallic dental syringe with varying sizes of bulbs attached.

Dr. NEIL J. HEPBURN said that he thought all were agreed that the syringing out of any cavity was a long step toward the cure, but, after this had been done in lachrymal affections, there was still a large number of cases that did not do well. The question of syringing, or the use of the canaliculus knife, had been a subject for discussion for many years, and it was still far from being settled. The treatment of the stricture was an important point, and it involved a prolonged course of intermittent dilatation, just as was required in strictures of the genito-urinary canal.

Dr. FRIDENBERG said that in 1713 the treatment by syringing was first introduced, and since then many other methods had been suggested. The treatment by syringing was now comparatively little used. He did not think the reader of the paper had been successful in re-establishing this operation, for most of us would find great difficulty in inducing our patients to come almost daily to our offices for a month or two. It must require extreme patience to carry out such treatment, and it seemed to him that syringing could only be looked upon as an important adjuvant to other treatment. In probably 90 per cent. of the cases the lachrymation was caused or aggravated by the need of proper glasses. This was a point which had been very generally overlooked by ophthalmologists.

Dr. A. E. GALLANT said that the author had followed in the line of the general surgeon in that he had changed from antiseptic surgery to aseptic surgery. It had been shown that this was capable of giving much better results than the former practice. It was only by the long-continued use of hot water that irritation of the mucous membrane might be allayed, and he thought it was by the patient application of the water that Dr. BATES had accomplished so much. A shorter application would have only resulted in aggravating the congestion.

Dr. BATES, in closing the discussion, said he had had a large experience in *curing* stricture of the nasal duct, and he was positive that it could be permanently cured. In an obstinate case of recurrent syphilitic stricture he had found that, where the syringing was combined with the probing, the stricture was not nearly so likely to recur. In all these cases one reason for the tendency of the stricture to return was the congestion produced by the passage of the probe, and this irritation could be materially reduced by syringing.

NEW YORK ACADEMY OF MEDICINE

SECTION ON GENITO-URINARY SURGERY

March 10, 1896

W. K. OTIS, M.D., Chairman

Urethroplasty Secondary to Perineal Section.

—Dr. RAMON GUITERAS: This man, while digging coal was struck by a piece of rock, which threw him against the ledge, fracturing his pelvis. As no urine was passed voluntarily, he was catheterized on the following day, but no urine was obtained. The physician of the mine then performed perineal section, and left in a drainage-tube for about two weeks. After this he remained in bed about two months, and could not urinate except after the passage of a sound. When he presented himself to me at the hospital, there was a small opening in the perineum about midway between the scrotum and

the penis, through which the urine was passed with great difficulty at intervals of an hour or two, accompanied by great straining and by prolapse of the rectum. By operation I found one-and-a-half inches between the situation of the sinus and the lowest point to which an instrument could be passed into the urethra. A drainage tube was inserted into the perineal opening, and left there for about twelve days. After this a No. 30 French catheter was introduced through the anterior urethra into the bladder, and was allowed to remain for about six days. Sounds were passed every other day for two or three months, and urination has now become fairly good. At the time of operation, the bladder held about four ounces; now it holds about twelve ounces. He now urinates only five or six times a day. In order to close this fistula I passed a sound into the urethra, and then made two elliptical incisions on either side of the fistula, and pared the tissues away for three-fourths of an inch on either side. Five sutures were then inserted after the manner of the old operation for the repair of the ruptured female perineum. The sutures should have been left in about ten days, but they were taken out on the fourth day. For the past twelve days he has not passed any urine through the perineal sinus.

Dr. L. B. BANGS: My experience has been that simple paring of the edges and bringing them together rarely succeed in these cases. I have usually found it necessary to reinforce the parts by another flap, or by some other modification of the operation.

The Chairman, Dr. OTIS: It seems to me that the after-treatment of these cases is more important than the operation itself, no matter what form of operation is done. For instance, it is particularly necessary to prevent urine leakage or septic infection of the wound, and therefore the patient should be subjected to a preparatory treatment to diminish as much as possible the cystitis. The patient should be catheterized whenever it is necessary for him to pass water, and the bladder washed out with boric-acid solution. It is also well in these cases to restrict the quantity of fluids drank as far as possible.

A New Method of Bladder Drainage.—Dr. R. H. M. DAWBARN: The apparatus consists of an ordinary fountain syringe, rubber tubing, a spring-clip, and an additional piece of rubber tubing attached to the main tubing from the syringe, and at right angles to it, by means of a small T-tube, or by stitching it into place. A "trap" is made in the syringe tubing by taking one circular loop in the tube. The ordinary "pinch-cock" is applied to the tubing near the bag of the syringe, and in such a way as to more or less occlude the lumen. It is in this way that the rate of outflow is regulated. The apparatus works equally well, whether the reservoir of the syringe is above or below the level of the bladder to be drained. The water from the syringe trickles down until the little circular trap becomes filled. This then overflows with a sudden gush, and in doing so draws air out of the little side-tubing, and so aspirates the fluid from the bladder. It is, of course, essential that the side-tubing be placed between the reservoir of the syringe and the trap, and that the lower end of the trap be below the level of the bladder.

Dr. EUGENE FULLER: I should think this device might be useful in some cases, especially when the bleeding is stopped. If a clot or coagulum should block the tube, it would be necessary to pull it out and clear the apparatus. If there was no cystitis, it should give satisfactory results. My object in treatment at the present time, however, is to secure quick closure of the suprapubic wound, and trust

entirely to perineal drainage. I should think also that the syringe would require to be filled very frequently.

Dr. DAWBARN: The bag need not be filled oftener than once in two or three hours, and the flow can be regulated to a nicety so that the siphoning, and hence the aspiration of the fluid from the bladder, take place at intervals of half a minute, or only about once in five minutes. Where there is a severe cystitis, I presume Dr. FULLER would not suture the bladder, and hence in such cases until the cystitis subsided it would seem that this drainage apparatus would be useful.

An Instrument for Massage of the Prostate.—Dr. G. K. SWINBURNE described the instrument. See p. 417.

Dr. FULLER: It seems to me that in this work the sense of touch is valuable, for it indicates whether or not there has been much congestion excited by the previous treatment, and for this reason I should ordinarily prefer to use the finger. Where the perineum is extremely rigid, such an instrument should aid the physician in reaching the vesicles. In many instances I have massaged the prostate backward, and avoided the vesicles, and in such cases the treatment has been followed by little or no benefit, showing that it is after all the massage of the vesicles that is important.

Dr. L. B. BANGS: Without any desire to detract from the credit due to Dr. FULLER, I would say that in 1891 I saw a reference in one of the German journals to massaging the prostate. I then undertook this treatment in men suffering from senile enlargement. I have felt that the benefit secured by the treatment of Dr. FULLER and others was often due to the involuntary massaging of the prostate, and I have therefore methodically massaged this organ. I can now add my testimony to the value of massaging the seminal vesicles, but I must also say that in a large number of cases the massaging of the prostate will prove useful. In my opinion, no instrument can take the place of the living and intelligent finger.

Dr. SWINBURNE: I certainly believe that the finger is more useful than the instrument in many cases; but the instrument is very useful in determining whether one or the other side is involved, or both, and this cannot be done by the finger.

Vesical Calculi Removed by Suprapubic Cystotomy.—Dr. ROBERT W. TAYLOR: The first calculus was taken from a man, 24 years of age, who gave no venereal history. Fourteen years before he passed a rough calculus about the size of a pea. This stone, which I now exhibit, weighs 1010 grains, and is composed of a mixture of uric acid and oxalate of lime. The second specimen was from a boy of 14, who for ten years had suffered from painful micturition. The stone weighs 256 grains. The outside coating is phosphatic, and the bulk of the calculus consists of uric acid. The third calculus was removed from an old man who entered the hospital in a deplorable condition. He had albuminuria, severe cystitis, and occasional retention of urine. After over two months of preparatory treatment, I removed a calculus weighing 108 grains. He has been very greatly improved by the operation, and will soon be discharged.

Dr. B. B. GALLAUDET: The calculus which I exhibit is remarkable on account of its appearance and size. It was removed from a boy of seven years, yet it weighed one ounce. The surface of the stone is evidently phosphatic. The boy had apparently suffered from this calculus for a year and a half prior to coming under observation, yet during all this

time the bladder had not been examined for stone. The suprapubic operation presented no difficulties. I did not use any rectal dilator, or introduce any fluid into the bladder. These are, of course, valuable aids to the operator, but are not absolutely necessary. To one who has had some experience in this work they are not really essential. I left the bladder open, stitching the edge of the bladder to the muscular planes. The boy was kept in bed for a week or ten days, the packing in the bladder being gradually reduced. In two or three weeks the fistula had completely closed.

Dr. BANGS: Why was not litholapaxy done in some of these cases?

Dr. TAYLOR: In the first place, the bladder was too small in the first patient; in the second patient, a boy, it was not suitable; and in the third, the old man was in such poor condition that I think litholapaxy would have been quite dangerous.

Dr. DAWBARN: In about 175 instances I have demonstrated suprapubic cystotomy on the cadaver, and I have found that not infrequently the peritoneum comes down lower than is usually supposed, so that there is danger of entering the peritoneal cavity by the usual incision. It is better, therefore, I think, to strip away the tissues behind the pubes, and enter at this point. I have succeeded in dispensing with the rectal bag by placing the patient in the Trendelenburg position, and distending the bladder with water or air.

Morphology of the Seminal Vesicles.—Dr. G. S. HUNTINGTON then delivered a lecture on this subject, illustrating his remarks very freely with lantern slides and casts. In speaking of the comparative anatomy the speaker said that in fishes, reptiles, and birds there were no seminal vesicles. He also showed that in some birds the distal portion of the vas, just before it enters the cloaca, becomes dilated or coiled upon itself.

SECTION ON GENERAL MEDICINE

March 17, 1896

REYNOLD W. WILCOX, M.D., Chairman

Acute Bronchitis.—Dr. WILLIAM H. THOMSON read the paper. He said that while the findings of pathological anatomy may be valuable in other respects, they afford us little assistance in elucidating the etiology of acute bronchitis. Thus, a typical attack may have been caused by getting the feet wet, by the presence of some poison in the blood, or by epidemic influenza, but in each case the bronchitis is just the same so far as palpable changes in the bronchial mucous membrane go. We have the same initial hyperemia of the capillaries and small vessels, the shedding of epithelial cells, etc. The clinical incidents and accompaniments are of greater significance etiologically. The difference in the liability of different mucous membranes to inflammation is well illustrated by the two tracts in such close proximity, that of deglutition and that of respiration. Inflammation of the laryngeal and bronchial mucous membrane is very frequent, while the reverse is true of the esophagus. Mucous membranes, therefore, do not become inflamed simply because they are mucous membranes. Irritation by foreign particles in contact with the mucous surface is rarely the cause of the inflammation. We do not see bronchitis due to irritating particles in the inspired air once, where we see it due to chill of the cutaneous surface ten times.

The progress of our knowledge, showing that many local inflammations are of bacterial origin,

may incline us to extend this etiology to inflammations of the bronchial mucous membrane. But there is a fact which makes it highly improbable that acute bronchitis is often due to bacterial agency. It is that the micro-organisms in the inspired air seldom reach the air cells. An observation, published as long ago as 1868 by LISTER went to prove this, for he found that inspired air reaching the pleura did not cause infection, whereas air having access to the pleural cavity from external opening did cause pleurisy the exudate of which was not sterile. All observations from that time to the most recent, published in the *Lancet* in January, 1896, go to prove that the inspired air is free from germs when it reaches the air cells, and even in the trachea. What becomes of them? They are arrested in the nose which is lined with ciliated cells possessing germicidal properties. The mouth always contains millions of bacteria, and multitudes of them pass down the gullet with every act of swallowing, yet this mucous membrane is inflamed rarely. It may seem clinically that epidemic influenza must be of bacterial origin, but this disease proves too much. Its manifestations are numerous, and would point to toxins in the blood as the cause rather than to bacilli on the bronchial mucous membrane.

We begin with the clinical fact that bronchitis develops first in the bronchial tubes themselves only in local infections, such as tuberculosis, or in toxic conditions of the blood, as in gout and uremia. In all other cases, and they are far the greater number, the bronchial inflammation is by extension downward from the upper air-passages. In some instances the process seems to attack the different divisions of the respiratory tract simultaneously, so that it may not be apparent in the nasal cavity first; but even in those cases there will be seen an intimate association of the sensibility in all parts of the respiratory tract, which points strongly to a specific nervous connection between them, both sensory and motor, and which has a great deal to do with the genesis of the catarrhal process. Hence bronchitis begins so uniformly with sneezing, sore throat, cough, that both we and the laity concur in attributing it to taking cold. But what is a cold? The pathological definition of inflammation will not answer, for, while it usually induces inflammation, it is not identical with it. Taken in the order of their development, the clinical phenomena indicate clearly a cutaneous area of origin. A chill of some portion of the body, usually when in a wet condition, is the first incident, and evidently has such a causative relation to the process that only the exigencies of some preconceived theory would ever lead one to deny it. The important factor about a cold is that it is far oftener due to a very limited rather than to a very extensive exposure of the surface to cold. A draft from a car-window upon a few square inches of the back of the neck, or sitting with wet feet in a room, is often as plainly connected with an acute attack of bronchitis as is eating unripe fruit with diarrhea. The variable results of exposure of different limited areas of the cutaneous surface to chill can only be explained by the nervous mechanism of the body. Our knowledge of this important subject is very imperfect, yet we already know a number of facts about the relation between the cutaneous sensory and vaso-motor nerves of internal organs, etc. The existence of close nervous connection between pair organs may be illustrated by plunging one hand into cold water when the temperature of the other will be seen to fall although the axillary temperature does not change.

Cold on the nape of the neck will check epistaxis while it will not stop bleeding from a tooth cavity. While there is little or no anatomical connection between the blood-vessels of the skin and the internal organs beneath, yet the nervous association is so intimate that an impression affecting the circulation in the skin is reflected on the circulation of the parts underlying it. Thus stimulation over the precordial region stimulates the heart as well. The more sudden and decided the nervous impression to the surface the more pronounced will be the internal result. In view of these facts we need not be totally at a loss as to the meaning of catching cold, or as to the term bronchitis caused by catching cold.

As to the local accompaniments of such catarrhal inflammation as is seen in acute bronchitis, there is the first stage of hyperemia, then swelling, then secretions. The secretions may be very viscid or very liquid, and the difference in the mechanical influence is great. The phenomena of so-called capillary bronchitis, with its dangers, are chiefly dependent upon the mechanical effects of local obstruction, and are not different essentially from the extensive and fatal pneumonia which follows main bronchial obstruction by a foreign body. In the former, however, the foreign bodies are scattered throughout a multitude of tubules. The watchful guardian against the extension of this mechanical obstruction is cough. Complete occlusion of the air-tubes, no matter how small they may be, should never be allowed.

In the treatment the best practice is to manage the cough in such a way as to make it do what it is mainly intended to do. Cough, however, is the motor outcome of excitation of a bulbar center which must be susceptible of a great variety of afferent impressions. It is seen in disturbances within the cranium, as basilar meningitis, in wax in the ears causing irritation of a branch of the trigeminus, by teething, by gastral-intestinal inflammation, pleurisy, etc., all of which are forms of reflex cough. One of the loudest of all coughs is that from uterine irritation. The true function of cough is to clear away some material other than air from the respiratory passages. Besides this form of cough in bronchitis, there is a purely irritant and useless cough which is a real complication, increasing pain, congestion, and favoring extension of the inflammation. It should be made to give way to the expectorant cough, which is different in character and in result. An irritant cough, no matter what its origin, always consists of separate sounds which are not linked together, while an expectorant cough invariably consists of closely linked sounds which continue until the substance is brought to the pharynx. It cannot be suspended until it ends in expectoration or swallowing. We should in practice make the secretions in the bronchial tubes as fluid as possible. In hemoptysis, for instance, there is no difficulty in bringing up the blood, and the difficulty of bringing up bronchial secretions is in proportion to their viscosity. The administration of oil is followed by more certain results than any other expectorant. For more than twenty years I have employed linseed oil in emulsion, given by the mouth.

The irritant cough calls for sedation. This can be effected without weakening expectoration. Whenever there is inflammatory pain opium is the anodyne. But in bronchitis the smaller the effective dose the better. Cough due to irritability is as well controlled by chloral as by opium. Hence, in acute bronchitis I begin with linseed oil to which small doses of morphine and opium have been added. If I find the patient quite dusky, much dyspnea,

husky, irritant cough, indicating tumefaction of the mucous membrane, I apply pepper as a counter-irritant to the chest, cloths wrung out of a pint of water to which while boiling has been added a teaspoonful of pepper. Dyspnea is quickly relieved by tartar emetic, one grain in a teacupful of water, teaspoonful frequently repeated. As a rule nauseating expectorants are not indicated. In capillary bronchitis emetics are used to dislodge secretions. Here we must direct our efforts to maintaining the heart. Brief and quick applications of red pepper infusion often rouse the flagging organ. It is also stimulated by each act of deglutition. I think SYLVESTER'S method of artificial respiration, gently applied, has in my hands sometimes been crowned with success in saving life.

Dr. ANDREW H. SMITH opened the discussion. He said: "I agree in the main with Professor THOMSON. To a few of his conclusions I would take exception. It seems to me the truth regarding the causation of acute bronchitis may lie between the two extremes—that exposure and cold favor the development of germs which are the active factors. While exposure of a limited portion of the cutaneous surface may be more frequently followed by bronchitis than exposure of a larger area, or of the whole surface, yet few of us could, for instance, sit in a room with a temperature of 60° F. without taking cold. Dr. THOMSON has spoken of shedding of the ciliated epithelia as one of the earlier changes. It is quite possible their movements are first interfered with, favoring the passage of foreign bodies downward. That it is quite possible to inhale particles into the lungs is seen in miners and those who inhale soot. They may cough up black sputa for weeks afterward.

"It seems to me the seat of irritation in cough is at the V-division of the bronchial tubes, the point which receives the full impact of the column of air as it divides to go down the separating branches. As the column of air splits it produces mechanical irritation.

"That bronchitis or a cold may be due to germs would seem to be shown by the fact that all the members of a family are often affected about the same time. If only one factor were necessary, it seems to me we ought to take a cold every time a certain portion of the surface is chilled. Where the irritation extends to a considerable depth, I think there is, not alone tumefaction, but also spasmodic action excited in the circular fibers of the tubes. A quick result is often obtained by a little chloroform or opium to overcome this spasmodic action. I would like Prof. THOMSON to tell us how oil acts upon the bronchial mucous membrane. Capsicum vesicant is an admirable thing, and I have used it in collapsible tubes, mixed with vaselin. I would again lay stress upon the importance of supporting the right ventricle in all cases where there is obstruction to the circulation through the lungs. Vaso-motor dilators, as nitroglycerin, are here indicated to transfer the blood from the venous to the arterial side of the circulatory apparatus."

Dr. JOHN WINTERS BRANNAN said that bronchitis is about the only disease left which is ascribed to the old-fashioned "taking a cold," and there is a disposition on the part of not a few to attribute it to microbic origin, although they have not been able to satisfactorily demonstrate this. He is inclined to agree with Professor THOMSON and attribute it to taking cold. At Willard Parker's it is only in those cases of diphtheria showing broncho-pneumonia that we find germs in the lungs, while in those with simple bronchitis no germs are found.

Yet in diphtheria it would seem there ought to be extension of germs down through the tube after intubation.

Last summer he saw a woman with an attack of that rare affection, fibrinous bronchitis. She showed a beautiful cast of the bronchi which she had coughed up, and said that, ten years before, Dr. Loomis had attended her in a similar attack and pronounced it fibrinous bronchitis. He asked Professor THOMSON whether he regarded the cast in such cases as really fibrin or only mucus, and what is the nature of the affection. The patient in question recovered rapidly, although one author says nearly all die. He uses flaxseed tea and applies a poultice to the chest, three parts flaxseed and one of mustard. Nothing is more satisfactory where there is much constriction of the chest. The tepid bath is valuable, especially in fever, and to encourage respiration and expulsion of mucus. For cough codeine is preferable to opium, having less tendency to check expectoration. Add to each dose three grains of muriate of ammonium and three grains of iodide of sodium.

Dr. L. DUNCAN BULKLEY said that the alkaline treatment by soda, which he recently published, has proved valuable not alone in his own hands, but in the hands of many physicians from whom he is receiving letters. Many patients whom he sees with skin diseases tell him that they have ceased to have colds since using the soda.

Dr. ACHILLES ROSE said that he had observed the freedom from colds in a company of soldiers except on one occasion when nearly all were affected, which would seem to point to a miasmatic origin in that instance. One can harden himself against taking cold, although Dr. ROSE would not advise everybody to take a plunge into the river every day of the year.

Dr. BEVERLEY ROBINSON took issue with the statement that cough resides in the bronchial or capillary tubes, for he had time and again relieved it by topical application to the larynx even where lower portions seemed seriously involved. Not speaking of bronchitis in particular, he thinks that creosote inhalation in lung affections is valuable clinically, although he could not say that it has a microbic action. In private practice we are almost compelled to employ cough mixtures and inhalations, for, as a rule, we are unable to use sprays. Oxy-sulphuret of antimony is less depressing and a better expectorant mixture than tartar emetic. He agreed with Dr. SMITH that the main danger to patients is fatigue of the right heart. We cannot judge by the pulse as well as by the effect of a stimulant. Regarding alkalies, they are of value in overcoming a diathesis in some instances, but he said that he would not like to see the profession accept this treatment as a panacea.

Dr. THOMSON, in closing the discussion, said: "The hour is too late to touch upon all the points raised. I have been much interested in membranous bronchitis, but have seen no case. Conflicting theories have been offered in explanation. I have imagined there must first be functional derangement and disturbance of nutrition in the epithelia to permit of a cast of mucus or of fibrin forming in the tubes. Oils absorbed into the blood act on different mucous membranes. Linseed oil, more than others, acts on the bronchial mucous membrane, increasing secretion."

A Centenarian in Practice. — Dr. WILLIAM SPRAGUE, of Coldwater, Mich., has practiced his profession for over half a century. He has just celebrated his ninety-ninth birthday and is still an active man.

CORRESPONDENCE

PHILADELPHIA LETTER

(From the BULLETIN'S Special Correspondent)

Prof E. P. DAVIS began his clinic at the Jefferson Maternity, Tuesday, March 17, by showing a child with supernumerary digits. He said that there was no definite reason why there should be five or more than five digits, and that the extra digits may spring from the thumb or any of the fingers. The tendency seems to be hereditary, as, in this case, the grandmother and one of her sisters and all of her children, except one boy (there were eight boys and three girls), had similar supernumerary digits springing from the little-fingers. All of the daughters now have children, and in each case there are extra fingers as in the child shown. There are none in the children of the male members of their grandmother's family, although most of them have children. It has occurred in each girl and her children for three generations. They should be removed when the child is about two weeks old when attached by pedicles, and when the child is ten or twelve years when attached by bony connections. The nails were perfectly formed, and the child seemed to be normal except in this respect.

He next showed a child weighing six pounds. There was no caput-succedaneum, or molding of the head, as the child was removed by cesarean section. The conditions requiring the operation were a contracted funnel-shaped pelvis, a deep symphysis, and very small soft-parts. The mother, a primipara, first had labor pain on Sunday morning, when the membranes ruptured; the pain continued, but not very strong, until Monday morning. When she was examined in the afternoon, under chloroform, the head could not be made to engage, and forceps were contraindicated. Symphysiotomy was next thought of, but there seemed to be too great disproportion between the head and pelvis, and the deep pubic joint and small soft parts all contraindicated that operation. As the woman did not want to become pregnant again the uterus was removed, and the edges of peritoneum were united over the invaginated stump. Prof. DAVIS showed the uterus, tubes, and ovaries. The uterus was amputated at the lower uterine segment. In one ovary there was a corpus luteum of pregnancy. It was quite hard, firm, and large.

* * *

The Common Council again defeated the bill to appropriate \$250,000 for the construction of filter-beds. The Trades' League, Manufacturers' Club, Board of Trade, and 1000 of the leading physicians sent in petitions requesting that the appropriations be made. The bill was introduced to establish different kinds of filtration, and these were to be so constructed that if any of them proved satisfactory they could be left permanently. The annual death-rate of the city from typhoid fever was given at about 400 for the last four years. The ordinance will be again introduced as soon as the new council take their seats.

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Drs. ALFRED STENGEL and A. A. EISHNER have been elected to the vacancies on the Philadelphia Hospital medical staff, caused by the resignations of Drs. E. L. VANSANT and J. N. ANDERS.

BOOK REVIEWS

The Anatomy of the Human Head and Neck.—

Graphically illustrated by means of superimposed plates, with descriptive text by Dr. SCHMIDT. English edition by WILLIAM S. FURNEAUX, author of "Animal Physiology," "The Outdoor World," etc. New York: Thomas Whittaker.

This is one of a series of popular anatomical models. This particular book, as its title would indicate, is devoted exclusively to the head. It consists of one plate of the head, which when examined closely is found to be made up of three distinct divisions, one superimposed upon another. The first illustrates the exterior of the head and the orbit, including both the muscles on the outside and on the inside of the orbit, namely the ocular group. The second division gives the muscles, vessels, and nerves of the head, and so-called neck. The third illustrates the interior of the skull and its contents. There is also a brief explanatory text, and a tabulated reference to the plates. It is quite a serviceable little book in its way.

Textbook of General Pathology and Pathological Anatomy.—

By RICHARD THOMA, Professor of General Pathology and Pathological Anatomy in the University of Dorpat. Translated by ALEXANDER BRUCE, M.A., M.D., F.R.C.P.E., F.R.C.S.E.; Lecturer on Pathology, Surgeon's Hall, Edinburgh; Pathologist to the Royal Hospital for Sick Children; Assistant Physician and formerly Pathologist to the Royal Infirmary, Edinburgh. Volume I, with 436 illustrations in the text and four colored plates; large 8vo; pp. i-xiv, 1-624. London: Adam & Charles Black; New York: Macmillan & Co.; 1896. Price, \$7.00.

There are few men better qualified to impart information on the subject of pathology and pathological anatomy than RICHARD THOMA, whose name is familiar to all workers more or less interested in scientific medicine. For more than twelve years he acted as first assistant to the celebrated Professor ARNOLD, of Heidelberg, and subsequent to that time labored independently in Dorpat for ten years.

As all books have an excuse for existence, on perusal of the preface we learn that the author's desire to present the whole subject of pathology to his students in a form which would supplement his lectures led to the publication of this most complete work. The teachings so clearly laid down in this treatise are the fruit of nearly a quarter of a century of exhaustive and painstaking research on the part of the author and his numerous pupils.

In looking over the contents, many points of excellence are met with, to consider all of which *in extenso* would lead us far beyond the limits of a review. Even had we the space, no amount of comment would convey any idea of the accuracy of the many engravings, most of which are from the pen of the author. To be appreciated the book must be read and studied. The translation has been well done, is smooth, and clothed in excellent English, all of which indicate that the person to whom the English edition owes its existence was thoroughly familiar with both the language of the original and the subject.

This new work of THOMA's is unquestionably one of the best on pathology and pathological anatomy

ever offered to English-reading students, and anyone contemplating the purchase of such a treatise cannot do better than select this one. We can conscientiously and heartily recommend it.

The Diseases of the Will.—By TH. RIBOT. Translated by Merwin-Marie Snell. Pp. 134. Chicago: The Open Court Publishing Co., 1894. Price, 75 cents

This little volume is uniform with Prof. RIBOT's "The Psychology of Attention" and "The Diseases of Personality." In this work he aims to show that in every voluntary act there are two entirely distinct elements—the state of consciousness and a very complex psychophysiological mechanism, in which alone resides the power to act or to restrain. In considering the will, he limits himself to a study of it in its double mechanism of impulse and inhibition, and in its source. It is a matter of congratulation that the author abandons the improper term "diseases of the will," when he comes to elaborate his ideas, and substitutes the proper expression "impairments of the will." Under this head he considers defect of impulse and excess of impulse, and then passes on to impairments of voluntary attention, the realm of caprice, and the extinction of the will (in ecstasy and in somnambulism). He concludes that the will is the final term of a progressive evolution, of which the simple reflex is the first; it is a mere state of consciousness, which has in itself no efficacy to produce a movement or an inhibition.

BOOKS RECEIVED

Studies in the Thought World; or, Practical Mind Art.—By HENRY WOOD, author of "Ideal Suggestion," "The Political Economy of Natural Law," etc.—Pp. 270. Boston: Lee & Shepard, 1896. Price, cloth, \$1.25.

A Treatise on the Diseases of Infancy and Childhood.—By J. LEWIS SMITH, M.D., Clinical Professor of Diseases of Children in the Bellevue Hospital Medical College, etc.—New (8th) edition, thoroughly revised and rewritten and much enlarged. Handsome octavo of 983 pages, with 273 illustrations and four full-page plates. New York and Philadelphia: Lea Brothers & Co.; 1896. Price, cloth, \$4.50; leather, \$5.50.

New Truths in Ophthalmology.—As developed by G. C. SAVAGE, M.D., Professor of Ophthalmology in the Medical Department of the Vanderbilt University, etc.—Pp. 270, with 58 illustrations. Nashville, Tenn.: G. C. Savage; 1896. Price, cloth, \$2 net.

A Pictorial Atlas of Skin Diseases and Syphilitic Affections. Part III.—By ERNEST BESNIER, A. FOURNIER, TENNESON, HALLOPEAU, DU CASTEL, HENRI FEULARD, and L. JACQUET. J. J. PRINGLE, editor.—To be published in 12 parts. Illustrated with photolithochromes and explanatory woodcuts. London: The Rebman Publishing Company; Philadelphia: W. B. Saunders; 1896. Price, paper, \$3 per part.

Bibliothek der gesamten Medicinischen Wissenschaften für praktische Aerzte und Specialärzte.—By HOFRATH, Dr. A. DRASCHE, and many others.—Nos. 89-90, 91-2. To be completed in 175 parts. Vienna and Leipsic: Carl Prochaska; 1896. Price, per number, M. 1 (35 cents).

EDITOR'S NOTES

Correction.—The list of officers of the Consulting Medical Board of the Orphan Asylum of the Hebrew Sheltering Guardian Society should have included the name of ALBERT T. SWAN.

Tuberculin Condemned.—It is reported that the Berlin Clinical Society has denounced Koch's tuberculin. Is this the beginning of the end of another "in"?

Another Leper Found.—The colony of lepers at North Brothers Island has been increased, a Chinaman having been discovered suffering from the disease the past fortnight.

Wisconsin's New Law.—Wisconsin has enacted a law making the sale of patent or proprietary medicines and drugs by other than regularly licensed pharmacists a misdemeanor, punishable by fine and imprisonment.

For Publicity.—At a recent meeting of the Board of Health of Hoboken, N. J., Dr. HEEFER introduced a resolution providing for admission of the press and public to future business meetings of that body. The resolution will be discussed at the next meeting.

The Leidy Fellowship of Anatomy.—Nearly one-half of the sum desired to found the Leidy Fellowship of Anatomy, in Philadelphia, has been collected, and the prospects are encouraging that before long the entire amount will have been secured.

A New Journal.—The first number of the *Bimonthly Bulletin of the University College* has just reached us. It is edited under the auspices of the alumni and faculty of the University of Virginia, and is devoted to medicine, surgery, dentistry, and pharmacy. It presents a pleasing appearance, and its pages do credit to the editorial staff. We extend our best wishes for success.

Examination of Physicians in Boston.—The first examination of physicians for the year 1896 under the law of 1894 was held in Boston on the 10th inst. The examination is conducted by the Board of Registration and applies only to graduates from colleges beyond the State limits. A percentage of 70 is required for license to practice. There were 57 candidates.

The Mad War.—The fight between the Lunacy Commissioners and the Commissioners of Public Charities is at an end. The combatants have patched up a truce whereby new clothes will be furnished to transferred patients, the city to be reimbursed for the outlay entailed if the courts should decide her way. The Commissioners of Public Charities certainly have moral right on their side, whatever may be the legal aspects of the case. Since the city has the clothes of the insane carefully disinfected before attempting the transfer, it seems as though the dictates of humanity called upon the Lunacy Commissioners to view the question from a common-sense standpoint. If disgraceful squabbles of this nature are to become the rule, it will be wise to take the requisite steps for abolishing the present commissioners and for substituting others more amenable to common sense and less given to sticking for minute points in law.

Railway Surgeons to Meet.—The National Meeting of the Association of Railway Surgeons will take place on April 30 and May 1 and 2 at St. Louis, Mo.

Four-year Course at Buffalo.—Beginning with the year 1896-97 the medical department of the University of Buffalo will require four years' study for the degree of M. D.

The New Rochelle Hospital has been in existence four and one-half years, during which time over three hundred patients have received treatment within its wards.

A New Society.—A meeting of Western physicians is planned to take place at the Midland Hotel, Kansas City, Mo., on the 9th prox., for the purpose of forming a society of laryngologists, rhinologists, and otologists.

Richmond County Medical Society.—At a recent meeting of the Richmond County Medical Society, resolutions indorsing the bill to abolish the office of coroner, now pending in the Legislature, were adopted.

Illinois Doctors in Session.—At a recent meeting of the Clay County Medical Society the following officers were elected: Dr. M. M. GLADYSON, of Hord, president; Dr. W. W. DUNCAN, of Louisville, vice-president; and Dr. S. P. BERNS, of Bible Grove, secretary.

The Society of the Medico-Chirurgical Faculty of Maryland has secured a new structure on Hamilton Terrace, Baltimore, Md., where its library will be open to the various local societies. A book and journal club has been organized and a prosperous future is predicted. The annual meeting of the Society will take place April 28, 29, and 30.

The Medical Society of California will hold its annual meeting at Los Angeles, beginning April 21, and continuing three days. Dr. COCHRAN, the chairman of the Committee on Arrangements, is exerting every effort to provide entertainment for its members. Many valuable contributions have been submitted, and many more are promised.

The American Laryngological Association will hold its annual meeting at Pittsburg this year. At this writing about twenty-five papers have been recorded, and others are promised. An excellent program is in preparation, and the usual social features, including an elaborate banquet, will be in order.

The Army Medical School.—The graduating exercises of the Army Medical School took place on the 13th inst. at the Army Medical Museum, Washington, D. C. Introductory remarks were made by Col. ALDEN, followed by Prof. BRINTON, of Jefferson Medical College, after which Senator HAWLEY, of Connecticut, presented the diplomas.

Lackawanna County (Pa.) Health Boards.—The Associated Boards of Health of Lackawanna County, Pa., will hold their semi-annual meeting April 21. Sanitary matters will be discussed and an effort made to stimulate greater activity by health officers

in order that more effectual work toward sanitary measures may be accomplished throughout the county.

New York Celtic Medical Society.—The regular monthly meeting of this society was held at the residence of Dr. JOSEPH GRAY, 354 West Twenty-ninth street, on Thursday, March 26, 1896, at 8.30 p.m. The program for the evening was as follows: (1) Scientific communications. (2) Presentation of cases. Instruments and specimens. (3) Paper: "Treatment of Puerperal Septicemia," Dr. JOHN ASPELL. (4) Executive session. Adoption and revision of the new constitution. (5) Social reunion. PETER MURRAY, M.D., secretary, 208 Amsterdam avenue; FRANCIS J. QUINLAN, president, 54 West Seventeenth street.

International Dermatological Congress.—Below we present the program of the Third International Congress of Dermatology, to be held in London, August 4 to 8, 1896.

Tuesday, August 4. Subject: "Prurigo." 1. Dr. Besnier (Paris). 2. Dr. Kaposi (Vienna). 3. Dr. J. C. White (Berlin). 4. Dr. Payne (London).

Wednesday, August 5. Subjects: "The Etiology and Varieties of Keratosis." 1. Dr. Unna (Hamburg). 2. Dr. H. G. Brooke (Manchester). 3. Prof. V. Mibelli (Parma). 4. Dr. W. Dubreuil (Bordeaux).—"Syphilitic Reinfection." 1. Prof. Fournier (Paris). 2. Prof. Lang (Vienna). 3. Mr. Alfred Cooper (London). 4. Dr. Fitzgibbon (Dublin).

Thursday, August 6. Subjects: "The Connection of Tuberculosis with Diseases of the Skin other than Lupus Vulgaris." 1. Dr. J. Nevins Hyde (Chicago). 2. Dr. Hallopeau (Paris). 3. Dr. Radcliffe Crocker (London). 4. Dr. G. Riehl (Vienna).—"The Duration of the Period of Contagion of Syphilis." 1. Mr. Hutchinson (London). 2. Prof. Campana (Rome). 3. Prof. Lassar (Berlin). 4. Dr. Feulard (Paris).—"Ringworm and the Trichophytons." 1. Dr. Laboureaud (Paris). 2. Prof. Rosenbach (Göttingen). 3. Mr. Malcolm Morris (London).

Friday, August 7. Subjects: "The Nature and Relations of the Erythema Multiforme Group." 1. Prof. De Amicis (Naples). 2. Dr. T. H. Veiel (Stuttgart). 3. Dr. P. A. Morrow (New York). 4. Dr. Stephen Mackenzie (London). "Malignant Syphilis." 1. Prof. Handlung (Copenhagen). 2. Prof. Neisser (Breslau). 3. Prof. Tarnovsky (St. Petersburg).

Voluntary papers, the subjects of which are not specified in the foregoing, will be read Wednesday and Friday, and each subject will in every case be followed by a clinical demonstration of cases.

Saturday, August 8, will be devoted entirely to clinical demonstration of cases.

The Congress has secured for its use the building known as Examination Hall, on the Victoria Embankment. This will afford every facility for all kinds of demonstrations. Special efforts are being made to have large clinical demonstrations of cases. It is of the greatest importance that those intending to join the congress should notify the local secretary, Dr. J. J. PRINGLE, 23 Lower Seymour street, London, W., of their intention as soon as possible.

Hearing before the Charity Commissioners.—On Wednesday afternoon the Commissioners of Public Charities gave a hearing to a number of medical men, who in behalf of the profession at large protested against the placing of the hospitals, under the care of the department, in the hands of the medical schools, under which arrangement the vast body of medical men are excluded from hospital privileges. The matter was argued purely from the standpoint of equity. A respectful hearing was given and the Board will render its decision in the course of a few days.

The Washington State Medical Society will hold its annual meeting at Tacoma, May 19, 20, and 21. The officers of the association are sparing no effort to accomplish results which will make the event a scientific and social success.

The Medical Society of Pennsylvania will hold its forty-sixth annual session in Harrisburg, May 19 to 21 inclusive. Russ Hall has been secured for the event, and officers of the association predict a most successful meeting.

The Medical Association of Montana will hold its annual meeting at Helena on the 9th of April. Papers will be read by many prominent medical men throughout the State, and the local authorities will proffer hospitality.

The Nebraska State Medical Society will hold its annual meeting at Lincoln on May 19, and will continue three days. The program, which is not yet complete, will include the names of many noted men. The papers submitted thus far are valuable contributions, and officers of the society look forward to this congress to furnish a banner page in the history of the association.

The Wisconsin State Medical Society.—The annual meeting of the Wisconsin State Medical Society will take place at Madison, June 3, 4, and 5, and will be characterized by a departure from the regular program of its meeting. Sanitation in its various aspects will be considered and discussed, attention being especially directed to drainage, prophylaxis, and quarantine.

It is desirable, says the president of the society, that fine, clear-cut, definite personal views be submitted, and no rehash of Eastern productions is needed.

No doubt Wisconsin has the material wherewith to originate lines of thought and classify them into practical working formulæ, and we will look forward to the outcome of this departure by her State society with much interest. Some valuable papers are promised, many have already been submitted, and a truly sanitary congress is assured, in which up-to-date sanitary problems will be thoroughly and scientifically discussed—aside from the fact that "Eastern" ideas cannot be presented!

American Academy of Medicine.—The subjoined is an outline of the program for the twenty-first annual session of the American Academy of Medicine to be held in the "Dancing Hall" of the Hotel Aragon, Atlanta, Ga., on Saturday, May 2, and Monday, May 4, 1896:

The proprietors of the Aragon have made special rates for those who attend the meeting; it is confidently expected that the concession for one and one-third fare for the round trip granted to the American Medical Association will be available in time for those who desire to attend the opening session; a very pleasant excursion can be arranged to start from Philadelphia and visit Asheville, N. C., the "Land of the Sky," and Chattanooga, en route to Atlanta, if a sufficient number club together for that purpose; or special Pullman cars can be chartered for the exclusive use of those who attend the meeting for the direct route to Atlanta from any rendezvous selected. The secretary invites correspondence on any of these topics, and also from those who may desire a copy of the completed program, when it is issued; full information will be promptly given on any of these subjects.

The Academy will meet in executive session with closed doors on Saturday, May 2, at 10.00 a.m. The open session for the reading of papers will begin at about 11.00 a.m.,

there will be a recess for lunch from 1.00 to 2.30 p.m. The "Reunion Session" and annual dinner will be held on Saturday evening. An executive session will be held on Monday morning, after which the special discussion on "Methods of Medical Education" will be the order of the day. The Association of American Medical Colleges and the Confederation of the State Boards of Medical Examiners and Licensers have accepted the invitation of the Council and will participate in this discussion. The time-table for the day and the time for adjournment will be determined by the circumstances.

Papers have been promised as follows:

- 1.—"Laboratories and Hospital Work." The President's Address. HENRY M. HURD, M.D., Baltimore, Md.
- 2.—"Colonies for Epileptics." FREDERICK PETERSON, M.D., New York city.
- 3.—"Insanity in the South." J. T. SEARCY, M.D., Tuscaloosa, Ala.
- 4.—"Tuberculosis in Public Institutions." J. W. BABCOCK, M.D., Columbia, S. C.
- 5.—"Vivisection." GEORGE M. GOULD, M.D., Philadelphia.
- 6.—Subject not yet given. WOODS HUTCHINSON, M.D., Iowa City, Ia.
- 7.—"The Confusion of Pharmacy Relating to the Theory and Practice of Medicine." ELMER LEE, M.D., Chicago.
- 8.—"A National Board to License for the Practice of Medicine." HENRY LEFFMANN, M.D., Philadelphia.
- 9.—Report of the Committee to Abstract the Laws Regulating the Practice of Medicine and to Suggest a Model Law. PERRY H. MILLARD, M.D., Chairman, St. Paul, Minn.
- 10.—"Homicide." PAUL BARTHOW, M.D., Philadelphia.
- 11.—"The Sociologic and Scientific Attitude of the Medical Profession." W. J. K. KLINE, M.D., Greensburg, Pa.
- 12.—"A Study of some of the Distinguishing Features of the Homo Medicus." CHARLES MCINTIRE, M.D., Easton, Pa.

There will be a discussion on "Methods of Medical Teaching." This discussion will be opened by a series of ten-minute papers; and in the open discussion to follow, each speaker will be limited to five minutes. The opening papers are as follows:

- 13.—"The Preparatory Mental Discipline for the Medical Student." F. H. GERRISH, M.D., Portland, Me.
- 14.—"The Lecture and its Uses." CHARLES B. PENROSE, M.D., Philadelphia, Pa.
- 15.—"Textbook Recitation and its Advantages." DE LANCEY ROCHESTER, M.D., Buffalo.
- 16.—"Laboratory Methods." V. C. VAUGHAN, M.D., Ann Arbor, Mich.
- 17.—"Clinical Teaching for Graduates in Diseases of Children." J. MADISON TAYLOR, M.D., Philadelphia.
- 18.—"The Seminary Method." BAYARD HOLMES, M.D., Chicago.
- 19.—"Examinations." E. L. HOLMES, M.D., Chicago.
- 20.—"Students' Medical Societies." ROSWELL PARK, M.D., Buffalo.
- 21.—"State Examination." J. MCPHERSON SCOTT, M.D. (of the Maryland Board of Examiners), Hagerstown, Md.
- 22.—"The Best Method to Teach Anatomy." JOHN B. ROBERTS, M.D., Philadelphia.
- 23.—"The Best Method to Teach Physiology." CHARLES D. SMITH, M.D., Portland, Me.
- 24.—"The Best Method to Teach 'Practice.'" J. C. WILSON, M.D., Philadelphia.
- 25.—"The Best Method to Teach Surgery." J. S. WIGHT, M.D., Brooklyn.
- 26.—"The Best Method to Teach Obstetrics." J. C. EDGAR, M.D., New York city.
- 27.—"The Best Method to Teach State Medicine." GEORGE H. ROHE, M.D., Catonsville, Md.

Dr. CHARLES MCINTIRE, of Easton, Pa., is secretary.

The Florida Medical Association.—The next meeting of the Florida Medical Association will be held at Sanford, beginning April 7. Dr. G. THORPE MAXWELL, of Jacksonville, Fla., will be orator of the occasion. The chairmen of the various committees have arrangements in preparation for an excellent program, and some of Florida's most prominent physicians will participate.

The Medical Association of Alabama will hold its annual meeting in the city of Montgomery on April 21, and will continue in session four days.

Regular reports will be submitted, as follows: 1. **JEROME COCHRAN, M.D., Mobile**—The Recent Progress in Hygiene. 2. **GEORGE SUMMERS BROWN, M.D., Birmingham**—The Recent Progress in Therapeutics. 3. **ROBERT HUGHES HAYES, M.D., Union Springs**—The Recent Progress in the Prevention and Treatment of Tuberculosis. 4. **THOMAS DUKE PARKE, M.D., Birmingham**—The Recent Progress in the Prevention and Treatment of Sepsis. These reports will be followed by discussion of volunteer papers which will not exceed ten minutes in length. An unusually large attendance is looked for, and there is every prospect of a very successful meeting.

The Canadian Medical Association will hold its annual meeting at Montreal, Province of Quebec, about August 26, and will be in session for three days. The program is in preparation, and will be published in the columns of the BULLETIN when completed.

The following is a list of officers for 1896:

President: James Thorburn, Toronto. Vice-presidents: For Prince Edward Island, James Warburton, Charlottetown; for Nova Scotia, William Tobin, Halifax; for New Brunswick, W. W. White, St. Johns; for Quebec, Hon. John D. Marcil, Quebec; for Ontario, Fife Fowler, Kingston; for Manitoba, H. H. Chown, Winnipeg; for Northwest Territory, G. Brett, Banff; for British Columbia, R. E. McKechnie, Nanaimo. General secretary: F. N. G. Starr, Toronto. Local secretaries: For P. E. I., H. D. Johnson, Charlottetown; for N. S., G. C. Jones, Halifax; for N. B., Wm. Christie, St. John; for Quebec, J. G. McCarthy, Montreal; for Ontario, John H. Mathieson, St. Mary's; for Manitoba, W. J. Neilson, Winnipeg; for N. W. T., Geo. MacDonald, Calgary; for B. C., W. A. Richardson, Victoria. Treasurer: H. B. Small, Ottawa.

Iowa State Medical Society.—Below we present the program of the forty-fifth annual meeting of the Iowa State Medical Society, which will be held at Des Moines April 15 and continue in session three days.

PRACTICE OF MEDICINE

Pathology and Therapeutics of Rheumatism—E. H. King, Muscatine.

Etiology and Therapeutics of Lithemia—Walter E. Scott, Adel.

Chronic Bright's Disease. (a) Diabetes Mellites—C. F. Wahrer, Fort Madison. (b) Etiological Factors in Relation to Different Forms—Caleb Brown, Sac City. (c) Pathological Histology of—Walter L. Bierring, Iowa City. (d) Treatment—P. J. Farnsworth, Clinton. Discussion opened by Woods Hutchinson, Iowa City.

Transitory Albuminuria; Its Significance in Relation to Life Insurance—Geo. F. Jenkins, Keokuk.

Cardiac and Arterial Lesions in Relation to Bright's Disease and Rheumatism—J. W. Kime, Des Moines.

SURGERY

Surgical Treatment of Pleurisy. (a) Pathology of Hydrothorax and Empyema—J. W. Cokenower, Des Moines. (b) Treatment of Hydrothorax and Empyema—H. A. Leipziger, Burlington. Discussion opened by G. Walter Barr, Keokuk.

Surgical Treatment of Nerve Injuries. (a) Pathology of Nerve Injuries—G. H. Eiskamp, Washington. (b) Treatment of Lacerated, Contused, Compressed, and Divided Nerves—F. S. Thomas, Council Bluffs. Discussion opened by Donald Macrae, Jr., Council Bluffs.

Surgical Treatment of Peritonitis. (a) Septic Peritonitis—Lewis Schooler, Des Moines. (b) Tubercular Peritonitis—Wm. Jepson, Sioux City. Discussion opened by D. W. Smouse, Des Moines.

Surgical Treatment of Abdominal Traumatism. (a) Gunshot Wounds of the Abdomen—H. E. W. Barnes, Creston; Thos. J. Maxwell, Keokuk. (b) Punctured Wounds of the Abdomen—J. E. Summers, Omaha, Neb. Discussion opened by Edward Hornibrook, Cherokee.

OBSTETRICS AND GYNECOLOGY

Puerperal Eclampsia. (a) Etiology and Pathology—H. L. Getz, Marshalltown. (b) Prevention and Treatment—J. W. Young, Bloomfield. Discussion opened by D. W. Smouse, Des Moines.

Management of Mother During Lying-in Period—W. F. Graham, Atlantic. Discussion opened by James W. Cokenower, Des Moines.

Ovarian Neurosis. (a) Etiology and Pathology—J. C. Schrader, Iowa City. (b) Treatment (Surgical and Non-Surgical)—Prof. J. M. Baldy, Philadelphia, Pa. Discussion opened by J. R. Guthrie, Dubuque.

Pyosalpinx and Chronic Salpingitis. (a) Etiology and Pathology—R. E. Conniff, Sioux City. (b) Treatment (Surgical and Non-surgical)—A. L. Wright, Carroll.

NERVOUS AND MENTAL DISEASES

Report of Chairman, Frank C. Hoyt, Clarinda.

Senility and Senile Dementia; Pathology and Relation to Testamentary Capacity—G. H. Hill, Independence. Discussion opened by J. H. Kulp, Davenport.

Toxic Causes of Insanity. (a) Narcotics. (b) Stimulants. (c) Infectious Diseases—E. H. Reynolds, Centerville. Discussion opened by E. M. Singleton, Marshalltown.

Importance of Early Diagnosis in Certain Organic Nervous Affections—Charles Enfield, Jefferson. Discussion opened by R. L. Cleaves, Cherokee.

Neurosis incident to Menopause—Jennie McCowen, Davenport. Discussion opened by Edith Fosnes, Des Moines.

OPHTHALMOLOGY AND OTOTOLOGY

Surgical Treatment of Trachoma—Wm. Kinnier, Dubuque.

Eye Symptoms in Obscure Brain and Spinal-cord Diseases—C. M. Hobby, Iowa City.

Functional Nervous Affections Arising from Optical Defects—Albert W. Elmer, Davenport. Discussion opened by H. B. Young, Burlington.

Ear Disease; the Sequelæ of Acute Infectious Diseases—Frank E. Sampson, Creston.

Pathology and Treatment of Septic Diseases of Mastoid Cells—F. Overholt and F. M. Patterson, Des Moines.

MATERIA MEDICA

Limitations in the Use of Coal-tar Derivatives—H. D. Easign, Boone.

Internal Antipyretics in the Treatment of Fevers—O. D. Benson, Des Moines.

Cardiac Stimulants in the Treatment of Fevers—L. W. Littig, Iowa City.

Strychnia in Treatment of Diseases in Old Age—J. R. Guthrie, Dubuque.

STATE MEDICINE

Tuberculosis: Infection through Milk and Unfavorable Sanitation—H. E. Harriman, Ames.

Development of Acute Infectious Diseases. (a) By Contaminated Water Supply. (b) By Imperfect Plumbing and Defective Sanitary Surroundings—J. M. Emmert, Atlantic. (c) Duties of Transportation Companies in Relation Thereto—J. N. Warren, Sioux City.

Arrangements have been made for a reduction in railroad rates to one and one-third fare. A receipt should be taken from the local agent issuing a ticket, and the same presented to Dr. PRIESTLY, Chairman of the Committee of Arrangements, who will see that it is properly signed, stamped, and returned for repayment.

The following is a list of officers of the Society: DAVID S. FAIRCHILD, of Clinton, president; FREDERIC S. THOMAS, of Council Bluffs, first vice-president; H. E. W. BARNES, of Creston, second vice-president; JAMES W. COKENOWER, of Des Moines, secretary; E. LUTHER STEVENS, of Des Moines, assistant secretary; GEORGE R. SKINNER, of Cedar Rapids, treasurer.

Personal.—Dr. EDWARD H. KERSCHNER, the findings in whose court-martial have just been approved by the President, and who, in consequence, has been dismissed from the navy, is, judging from the record, an officer that the service can ill afford to lose. He entered the navy as assistant surgeon, September, 1861. He was soon appointed to serve on the *Cum-berland*, and was on board when she was rammed and sunk by the *Merrimac*. He then joined the *Ironsides*, and took part in the siege of Charleston. Afterward he was appointed to the ironclad *Choctaw*, and remained on board of her until the end of the war. After the war he served, after an exemplary fashion, in various native and foreign waters, and in 1872 he was commissioned surgeon. Until 1874 he was on board the receiving-ship *Vermont* at the Brooklyn Navy Yard, and then, on board the *Swatara*, he went on the transit-of-Venus expedition in the Indian Ocean. He afterward served successively in Asiatic waters, and as fleet surgeon to the home squadron under Rear-Admiral MEADE, by whom charges were preferred against him of a violation of a lawful regulation of the Secretary of the Navy, and of conduct tending to the destruction of good morals in the naval service.

The vacancy occurring in the Naval Medical Corps through the dismissal of Dr. KERSCHNER will result in the promotion of Surgeon JOHN C. WISE to the grade of medical inspector.

Dr. HUNTER A. BOND, of Petersburg, Va., has been appointed one of the physicians on the staff of the Manhattan State Hospital, New York city.

Army and Navy Items.—ARMY: The leave of absence for seven days granted Major Joseph K. Corson, Surgeon U. S. Army, Fort D. A. Russell, Wyoming, has been extended twenty-three days.

NAVY: Surgeon P. M. Rixey was ordered to the Naval dispensary, Washington, D.C.

Assistant Surgeon H. LaMotte was detached from Naval Hospital, Chelsea, Mass., and ordered to receiving-ship *Franklin*.

Surgeon G. E. H. Harmon was detached from the Naval Dispensary, Washington, and ordered to the Naval Academy.

P. A. Surgeon C. H. T. Lowndes was ordered to the Washington Navy-yard.

Obituary.—Dr. ERASTUS HULL died at Shreveport, La., on the 6th inst.

Dr. WILLIAM SAVERY died at his home in Germantown, Pa., on the 13th inst. He was graduated from the University of Pennsylvania with the class of 1861. He became resident physician to the Wills Eye Hospital after graduation, and subsequently was attached to the staff of the Pennsylvania Hospital. He was a member of the Philadelphia and Montgomery County medical societies.

Dr. E. WEED BIBBINS died at his home in Syracuse, N. Y., on the 16th inst.

Dr. ROBERT MCMAHON died at Kenwood, Ill., on the 15th inst. He was born at Carlisle, Ky., August 6, 1831, and was graduated from Jefferson Medical College, Philadelphia.

Dr. CHARLES MASSBACHER, of Toledo, Ohio, died on the 15th inst.

Dr. CHARLES N. METCALF, for some time secretary of the Indiana State Board of Health, died in Indianapolis on the 10th inst.

Dr. JACOB WILE died in Alma, Mich., on the 13th inst. He was graduated from the University of Michigan, at Ann Arbor, with the class of 1888.

Dr. GEORGE W. CRUM, a well-known and prominent physician, of Jefferson, Md., died at his home in Frederick County, Md., on the 16th inst. He was 83 years of age and was graduated from the Medical Department of the University of Maryland in 1832.

Dr. WINTHROP SARGENT, a retired physician and a prominent resident of Roxbury, Mass., died on the 16th inst. Dr. SARGENT was born in Gloucester, Mass., 73 years ago, and was one of the oldest living graduates of Dartmouth College.

Dr. EDWARD G. MADDEN, of New Haven, Conn., died at his home on the 12th inst. He was a graduate of the class of 1885 of Yale Medical School.

Dr. EDWARD STEWART, one of the oldest physicians of Kalamazoo, Mich., died March 7.

Dr. E. C. PHILBRICK, aged 54 years, died at his home in Edgecomb, Me., on the 2d inst.

Dr. J. C. ANDERSON died at his home, near Covington, Ga., on the 2d inst.

Dr. EDWARD W. MARSHALL, 63 years of age, a prominent physician of Worcester county, died at Snow Hill, Md., March 4.

Male Pregnancy.—Dr. F. A. FISHER, of South Lake Linden, Mich., writes as follows:

Can you in some way explain the conditions giving rise to male impregnation as cited in the case detailed by MONTGOMERY in his work on Pregnancy, 1857, in which a fetus was found in the abdomen of a young man? Dr. F. A. FISCHER, B.S.

[There are a number of cases recorded in treatises on obstetrics and on teratology, where portions of fetuses, and even an entire fetus, have been found within the abdomen of man. (See, for instance, CHARPENTIER'S "Obstetrics," edited by GRANDIN, 1887.) The case referred to as recorded in MONTGOMERY'S classical work is authentic. Obviously, however, this does not mean that a male can bear children in the sense in which the term is used for the female. The male in these cases simply bears a child in the sense that it is carried within, not because this male has been impregnated. The anomaly is explained on the assumption that the ovum which was impregnated contained two nuclei, the one within the other. Each nucleus is impregnated, and a male child is born of woman, containing within its abdominal cavity the second impregnated nucleus, which may continue to develop up to a certain stage or is blighted and is found as possibly a dermoid. Obviously, this whole matter is purely one of theory, but the above doctrine of *fetus in fetu* has been accepted as the most plausible.—ED.]

Isolation after Diphtheria.—The New York city Board of Health has issued the following regulations regarding the isolation of cases of diphtheria in private houses:

"In private houses the duration of isolation of cases of diphtheria after apparent complete convalescence of such cases shall be determined by the physician in attendance, with the following conditions:

"First. Children convalescent from diphtheria shall not be allowed under any conditions to attend any kind of school, *i.e.*, day-school, Sunday-school, dancing-school, etc., until cultures show the absence of diphtheria bacilli in the throat.

"Second. Circulars of information regarding the persistence of virulent diphtheria bacilli in the throats of convalescent cases of diphtheria, and the dangers from infection arising from such cases, shall be furnished by the Health Department and presented by the attending physician, if the patient is a child, to the mother, father, or guardian, or, if the patient is an adult, to the patient, and the meaning of the circular and the significance of its contents explained to them.

"Third. The attending physician, when continued isolation is not maintained, shall immediately notify, in writing, the Chief Inspector of Contagious Diseases, of the Health Department, of his action, and disinfection of the premises may then be performed by the Health Department.

"Exceptions to this rule regarding the time of isolation of convalescent cases of diphtheria in private houses shall be:

"(1) Teachers of all kinds.

"(2) Persons whose occupations bring them into immediate contact with children.

"The regulations of the Health Department regarding isolation of cases of diphtheria in boarding-houses, apartment-houses, hotels, and tenement-houses heretofore observed shall be continued."

The circular of information regarding the danger of cases of diphtheria communicating the disease to others after convalescence is as follows:

"Diphtheria is due to a germ known as the diphtheria bacillus. This germ is present in the membrane and in the secretions of the mouth, nose, and throat of cases of diphtheria. The disease is only produced by the reception of these germs into the mouth or air-passages of other persons. The discharges from the nose and throat of cases of diphtheria containing these germs may be received on handkerchiefs, towels, bedclothing, carpets, rugs, personal clothing, toys, books, etc., dry, become pulverized and breathed in as dust, or they may be transmitted directly from the sick to the well through personal contact, as in the use of drinking-cups or eating-utensils which have been employed by the sick, or through kissing the sick, or through the direct discharge of the secretions on the hands or face or clothing of the nurse or physician or attendant, in making applications to the nose or throat of the sick person. Thus, in numerous ways the germs find their way from the throat of the sick to the mouth or air-passages of the well; and if then the conditions are favorable for the development of diphtheria in the throat of the person receiving them, after a varying period, the disease is produced. Diphtheria only follows the reception of the germs in the throat if favorable conditions for their growth exist there. In many cases the germs remain for many days and increase in number in the throats of healthy persons who have been in contact with cases of diphtheria, without producing the disease. Well persons who have these germs in their throats may convey them to others who contract the disease, while they themselves escape.

"During convalescence from diphtheria the germs of this disease often persist in the throat for many days after all signs of disease in the throat have disappeared, and after the individual is entirely well. Investigations show that in about 30 per cent. of cases they persist for three weeks or longer after the beginning of the disease; in 15 per cent., for four weeks or longer; in 5 per cent., for five weeks, and occasionally even for a much longer time. Experiments have shown that, almost invariably, these germs are virulent and capable of inducing the disease in others, so long as they persist in the throat, and

persons having such germs in their throats may convey the disease to well persons at any time. Observation, however, has proved that the chances of communication of the disease to well persons, after complete convalescence, are not great, excepting among children, who are far more susceptible to the disease, and who are much more likely to become infected through the frequent introduction of articles into the mouth. The danger of communicating the disease to others after recovery is less than during the disease, because the number of germs is smaller, and because the secretions are less abundant and not likely to be discharged so that they would be received by other persons. Where persons do not remain completely isolated, as they are strongly advised to do, until cultures made from the throat show the absence of diphtheria bacilli, they should constantly remember the facts set forth in this circular and use every precaution to prevent the communication of the disease to other persons, and should be particularly careful in their relation and contact with children.

"Under no conditions will children whose throat secretions still show the presence of diphtheria bacilli be allowed to attend school of any kind, and under no conditions will adults be allowed to return to their occupation, where this involves immediate contact with children."

Hilarity and Charity.—A mob of medical students took possession of the grounds of Bellevue Hospital last week, and for hours conducted themselves after a most disorderly fashion, yelling and snowballing and otherwise giving expression to the exuberance of feeling the outcome of the termination of the examinations. It is good for men occasionally to become boys; but the city should in future, if the medical school is to continue to occupy the hospital grounds, secure a lot in a remote neighborhood, where these students may go and be as disorderly as the law allows. We submit that noise and confusion in hospital grounds should be forbidden as against the interests of the sick, and the matter appeals to us all the more forcibly in the present instance, since the sick disturbed are paupers. The greatest of all charity is that which considers the most carefully those whose very poverty makes appeal to our sympathies the stronger. This is a matter which is commended to the Commissioners of Charities, and it constitutes still stronger ground for the vacating by the medical school of hospital premises.

Politics and Sanitation.—The Health Officer of Long Island City, Dr. W. J. BURNETT, has won a notable victory over there doubtless personage who, report says, practically owns that much-governed town. On his assumption of office, the mayor determined that he would rule the Health Bureau even as he had been in the habit of controlling about everything else. He proceeded to close the Health Department to the officials appointed by his predecessor, but, instead of meeting with the meek subserviency which appears to be the rule when his mandates are at stake, he was promptly served with an injunction from a justice of the Supreme Court, and victory perches upon the shoulders of the medical man. It is fortunate that Long Island City has a health officer who understands fully his rights and his duties, since New York is far too near to look with complacency on the infusion of politics into matters which relate to health and sanitation.

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PHYSIOLOGICAL FUNCTIONS OF THE SKIN

THE physiological functions of the skin are of a complex type; at the same time they should be clearly comprehended in every phase, both in health and in disease. The functions of the skin are best considered under three distinct heads: The physical, the secretory, and the excretory.

In its mechanical or physical function the skin is a more or less complete external covering for the whole body. In this capacity it acts in a large measure as an impervious coating for the whole organism. Acting in this manner many extrinsic and highly toxic agents are kept from gaining access to the closely underlying lymphatic and blood-vascular spaces. Hence the danger from over-bathing, which may be carried to such an excess that the surface layer of epithelial cells constituting the corium become unduly macerated, and thus a direct communication is established with the underlying lymphatic or vascular spaces. When this occurs microbic and toxic agents of all kinds gain access to the system and infection is established.

On the other hand, it is clearly apparent in the original plan of nature that this surface layer of epithelial cells should not be allowed to dry down and become, as it were, a dry and horny covering, which in a large measure is impervious to all forms of microbic and toxic substances. Undue hardness of the skin, with its consequent tendency to crack and thus open the lymphatic and vascular spaces for infection from without, is obviated by the secretory function of the skin, or a power possessed by the cell of the skin and its glands to produce constantly an oily excretion, by the presence of which it is

kept constantly oiled and therefore supple. The oil is also a factor in regulating the excretion of the heat from the surface of the body; it further aids the skin in its mechanical function by helping to prevent all aqueous substances from passing through from without to the underlying lymphatic and vascular spaces. The skin acts further mechanically as an outer limiting membrane, thus keeping the subcutaneous fluids and solids within its walls. The oily condition of the skin prevents the aqueous fluids within its walls passing out of the body too rapidly in precisely the same manner as they are kept from coming through from without. This being true it makes the elimination of water by the integument one of the excretory functions of the skin, which will be more fully elucidated later when studying the excretory function.

It is no easy task to draw a sharp line of distinction between an excretion and a secretion in the action of the skin. In fact this statement is true to a large extent when these terms are used at any time in connection with all the glandular organs throughout the body. In a general way, the statement is made that a secretion is a discharge from the glandular system of the body of substances that are to be of further use to the physiological economy, and that an excretion is a discharge from the glandular organs of the body of katabolic substances which have resulted from tissue metamorphosis, and are absolutely no longer of use to animal economy. So far as this latter statement is concerned, when standing alone there can be no question as to its accuracy, but it must be extended and made to cover a much wider field of action or functions. For most, if not all, of the so-called secretions are to quite a

large extent excretions as well, because they are composed of the katabolic products of metabolism, and after serving their purpose as secretions they are eliminated from the body as waste products. In other words, every secretion, in a very large measure, if not wholly, becomes ultimately an excretion; therefore the impossibility to draw at all times the sharp distinction between these two phenomena.

In relation to the skin and its functions these general principles are especially applicable; for most of the substances that are eliminated by the integumentary apparatus serve a purpose which is both secretory and excretory, and for this reason it is almost impossible to state accurately where the one function ends and the other begins.

Assuming, as has been done in connection with the other organs of the body, that oxidation occurs chiefly if not exclusively in the protoplasmic masses that constitute the epithelial cells of the body, it is apparent at once that the skin forms no exception to this general rule. For in the study of the composition it is found that the perspiration contains such katabolic bodies as water, urea, fatty acids, and fats, carbon dioxide, etc., all of which are formed as the result of the oxidation of the proteid substances in the epithelial cells which go to make up the integument and its various glandular structures. True it is that most of the water that is discharged through the skin is given off by being mechanically pressed through from the blood-vessels. On the other hand, a certain amount of water must be made in the oxidation of the proteid substance.

The secretory function of the skin then is to eliminate water, and the fatty acids and oils, all of which tend to prevent too rapid radiation of heat from the surface of the body. The oils, as before stated, are very important agents in keeping the integument soft and supple, and in preventing the passage of toxic substances through its structure.

The excretory function of the skin consists in its power to eliminate heat which is removed by conduction, radiation, and evaporation. As excretory products of the skin there may be mentioned as occurring normally such substances as water, urea, the fatty acids and oils, carbon dioxide, salts, and a trace of proteid matter. Under abnormal conditions, or when the skin is acting vicariously, a large number of substances have been found in the perspiration; such as cystine, dextrose, bile pigments, indigo, blood, hematin, proteids, uric acid, or its urates, calcium oxalate, lactic acid, etc.—to which might be added numerous drugs and many leucomaines and ptomaines yet to be more definitely elucidated.

The nervous mechanism of the skin may be spoken of largely as one of sensation or of peripheral impressions received from without—the most important of which is the sensation of temperature, or the appreciation of heat and cold. It is by this function that the skin is brought into relation with the other or deep glandular organs of the body, such as the liver and kidneys. Impressions applied to the nerves of the skin are transmitted to the cerebro-spinal centers, and are from there redischarged to the glandular organs of the body either as innervating or inhibitory impulses. By a similar mechanism impulses applied to the nerve-endings in the glandular organs within the abdominal cavity are carried up to the central nervous system, and from thence discharged to the skin as innervating or inhibitory impulses. In this manner the skin and the deep glandular organs are brought into very close relation with each other, so far as their secretory and excretory actions are concerned. This relationship between the skin and the renal organs has been found to be a very close phenomenon, and one that may be spoken of as an alternating action; for when the skin is very active the kidneys are somewhat in abeyance, and *vice versa*. Further than this, it is a well-known fact that when the kidneys fail to act the skin makes a vigorous attempt to vicariously accomplish what should have been done by another set of organs.

The chief functions of the skin then are to excrete heat and water and a moderate amount of some of the other katabolic bodies which have resulted from tissue oxidation; further, to protect the body from the invasion of toxic compounds from without; and by its nervous mechanism to maintain in conjunction with the other excretory organs a harmonious balance between the production of heat and the excretion of heat so that the bodily temperature will maintain a uniform standard, even though the surrounding temperature may vary widely.

Civil-service Examination for Pathologist.—On Friday, April 10, the New York Civil-service Commission will hold in their office, at 10 a.m. an examination for the position of pathologist, Department of Public Charities. Citizens of the United States over 21 years of age are eligible to this examination. The civil-service regulations require that "No person shall be admitted as a competitor for appointment who shall not produce to, and leave for a reasonable time with, the Examining Board a diploma or certificate from some reputable institution, showing that he has pursued in such institution, with credit, for two years, a course of study adapted to qualify him for the position which he seeks or for which his appointment is desired." Application blanks may be procured by applying to S. WILLIAM BRISCOE, Secretary, Criminal Court Building, New York.

ORIGINAL CONTRIBUTIONS

MEDICAL PRACTICE AND LEGISLATION IN CANADA

By R. FERGUSON, M.D.

IN Canada, each province controls and regulates its own medical education and licensing laws.

This power is exercised by a medical council in each province acting under and limited by authority vested in the council by act of Parliament. The Ontario Medical Council may be taken as the model on which all the others, with slight differences, are constituted. It consists of 17 territorial representatives — 9 collegiate and 5 homeopathic representatives.

The medical profession of Ontario is incorporated under the name of "The College of Physicians and Surgeons of Ontario," and every registered practitioner is a member of the said council. The 17 territorial representatives are elected by the members of the College of Physicians in each of the territorial divisions into which the province is divided. The universities and medical colleges are entitled to one representative each, or 9 in all, and the licensed practitioners in homeopathy elect 5 of their members to represent that body.

The medical council, thus constituted, elects its own officers—viz.: president, vice-president, treasurer and registrar—and meets annually at Toronto for the transaction of business.

The legal jurisdiction of the council comprises:

(1) The regulation of medical education.—The council maintains a high standard of matriculation for medical students, requires a 5-year course in medicine pursued at a recognized medical college, and the passing of three professional examinations, viz.: a primary after the second session, an intermediate after the third or fourth session, and the final after the fifth year. (2) Medical Registration.—Every candidate who has passed the examinations prescribed by the Council of Physicians and Surgeons is entitled, upon payment of a fixed fee, to be registered as a member of the College of Physicians and Surgeons; and only such persons as are duly registered are deemed by law qualified to practice. (3) Disqualification of any practitioner guilty of infamous or disgraceful conduct in a professional respect, and erasure of his name from the register. (4) Prosecution of unlicensed quacks. (5) To fix the terms upon which practitioners of medicine, duly qualified in other countries, may be admitted to the practice of their profession in this province.

It will be seen that the Medical Council is vested with a reasonable degree of legal authority, and that, while it guards the rights of registered practitioners, it guarantees the public the services of an educated and efficient medical profession.

The Council has, however, within the last two or three years, been vigorously attacked from two quarters—(1) from without, (2) from within, the profession. The attacks from without have come

from a political party recently organized among the farming community, and known as Patrons. This party proposed free trade in medicine as well as in commerce, and with that object introduced a bill into the Provincial Parliament a year ago, known as the Patrons' Medical Bill, the general tenor of the proposed legislation being to take from the Medical Council the power which it now holds of regulating medical education and determining the qualifications which entitle to registration as duly licensed practitioners. Fortunately for the public as well as the profession, the promoters of the bill found themselves in a hopeless minority, and their scheme was defeated by an overwhelming majority of 71 to 15. Both of the old political parties presented a solid front against the bill, holding that the medical acts which at present govern the profession were framed not for the creation of a close corporation, but for the protection of the public from charlatans and empirics, and to guarantee that the health of the community shall be intrusted to men fitted by education and training to guard and preserve the public health. It is to be hoped that this quietus will direct the energies of these embryonic rural statesmen into other channels for all time to come.

The attacks upon the Medical Council from within have been carried on by a section of the medical profession itself, who allege the following grievances:

1. The violation by the Medical Council of the act of incorporation by investing the funds of the college in real-estate speculation. The reference here is to the erection by the Council of a medical-college building at Toronto, part of which is utilized for examination halls, and offices for the Registrar, but the greater portion of which is let for office apartments.

2. The collegiate representatives returned by the universities and medical colleges are not elected by or responsible to the medical electorate.

3. The undue preponderance of the collegiate and homeopathic representatives. Until recently they numbered 13, and the territorial representatives only 12. A year ago, however, there was a readjustment of the territories, and the territorial representatives were increased from 12 to 17 members. The opposition to the Council was organized under the designation of the Defence Association, and placed candidates in the field at the last elections, with the result that a minority of the present territorial representatives are members of the Defence Association. The majority of the electorate, however, stood by the Council, whose friends claimed that the investment in a medical-college building was not a speculation in real estate, but a necessity, as examination halls and offices suitable for the requirements of the Council were not available; and that the rentals from the apartments let by the Council yielded a revenue which warranted the investment. As to the preponderance and non-elective character of a portion of the Council, it was pointed out that the Colleges and Homeopaths,

prior to the incorporation of the College of Physicians and Surgeons under the Ontario Medical Act, had rights and privileges conceded by acts of Parliament which they consented to transfer to the Medical Council, for which the representation conceded to these bodies was but a scanty compensation, and, moreover, that in all the movements for the furtherance of higher medical education, the collegiate representatives, so far from objecting, in the interests of the colleges, to the raising of the standards, have invariably been foremost in advocating higher standards of medical education.

Whatever the merits of the questions at issue, the Council, as at present constituted, seems to command the confidence of the majority of the profession. The Defence Association has doubtless estranged support which on general principles it would have commanded; by attempting to coerce the Council by refusing to pay the annual registration fee of \$2, from which the Medical Council derives most of its revenue. It has been generally felt that so drastic a course as this would, if tolerated, endanger the very existence of the Council, and that any grievances which may exist should be met by constitutional and not suicidal means. Notices have been served upon all delinquents that if arrears of assessments are not paid by June 1, 1896, all such delinquents will be disqualified and their names struck off the official register forthwith.

However, the presence of an opposition party at the Council Board will eventually do no harm, and will have the effect of keeping the medical profession alive to its interests, and more watchful of the course and actions of its representatives.

London, Canada.

TUBERCULOSIS OF THE BLADDER; ITS APPEARANCE AND TREATMENT THROUGH THE KELLY CYSTOSCOPE; WITH A REPORT OF CASES

By EDWARD REYNOLDS, M.D.

THE recent development of an easy and satisfactory method of exploring the bladders of women directly, and of examining the urine from each kidney separately, bids fair to rapidly extend our knowledge of the genito-urinary tuberculosis of women, and may possibly make direct surgical treatment, for women at least, somewhat more promising than has heretofore been thought possible. We are now able, in women, to locate the seat of the disease with accuracy, and, so far as the bladder is concerned, can, moreover, avail ourselves of direct local treatment of the lesions. During the year 1895 it was my privilege to see in the course of my service at the Boston City Hospital four cases of vesical tuberculosis. In three of these cases it was fairly probable that the bladder was the primary seat of the disease; in the fourth it was secondary to a tuberculosis of the kidney. In two of the cases a microscopical diagnosis was unobtainable, but the clinical aspect rendered tuberculosis probable; the other two were diagnosed

by the pathologist, as well as clinically, and were followed up for a prolonged period of time.

The number of my cases is but small, yet the scarcity of the literature of the subject makes me think that observations made upon even this small number of cases may be worth reporting; for although a few cases of tuberculosis of the bladder have been reported in which this method was practiced, I have failed to find in the *Index Medicus* any paper which gives either a detailed description of the appearance of the lesions, or an account of even a single case which has been followed up by direct inspection for more than a few weeks, and I am assured by a letter from the Surgeon-General at Washington that no such paper has been written since the publication of the *Index* ceased.

CASE 1. J. L., unmarried, entered the medical wards of the Boston City Hospital, service of Dr. WITHINGTON, on March 12, 1894. Her family history was negative. She was suffering from occasional sharp attacks of paroxysmal pain over the region of the right hip. Micturition was frequent, at times almost incessant, and attended by some scalding. There was a well-marked evening hectic. The urine was variable in quantity, and normal on chemical examination; there was a considerable sediment, composed mostly of pus and small round cells, with considerable normal and abnormal blood and occasional hyaline casts.

Palpation of the kidneys was negative. On April 7, however, immediately after an attack, the right kidney showed slight tenderness on palpation, and Dr. WITHINGTON was inclined to believe it slightly enlarged. A diagnosis of tuberculosis of this kidney was then thought probable, but not established. On May 5 I saw her for the first time, at Dr. WITHINGTON's request. On bimanual examination the genital organs were normal; the bladder was perhaps a little thickened, but not tender. On examination with the cystoscope under ether four or five recent ecchymotic spots were seen upon the posterior wall, each surrounded by an injected area. There was one circular ulcer about half the size of a split pea near the center of the trigonal region, and almost every part of the bladder wall which was seen was covered with minute glistening white specks (the light was very unsatisfactory at this examination and it is probable that the white specks seen were the minute bits of mucus or muco-pus, which are not uncommonly seen in inflamed bladders). The single ulcer which was seen presented a pale-gray surface, with slightly raised and reddened edges, and was thought to be probably tubercular. On April 12 the patient was again examined with the cystoscope, without ether, in a better light; and on this occasion, in addition to the ulcer before described, three small, pale, raised papules were detected just behind and outside the right ureteral orifice. The ecchymoses before noticed had disappeared. A cotton swab was passed lightly over the ulcer, and submitted to the pathologist for microscopical examination, but the result was negative.

During the next three weeks the ulcer and papules were touched every second day with a 10-grn. solution of nitrate of silver; but as I had not at this time learned the tolerance of the bladder for stronger applications, but little effect was produced. The patient left the hospital and was not seen again until February 2, 1895, when she appeared at my office with the statement that she had been fairly well in the interval, and had been at work as a domestic until the week before, but had then been compelled to throw up her place, on account of an increasing frequency of her desire to micturate, which had of late become almost constant. She was much emaciated, and was evidently in an advanced stage of tuberculosis. She was referred to the hospital, and on February 5 I examined her with the cystoscope, when a few small ulcers and a large number of papules were found occupying the trigonal region. A swab was passed over this portion of the bladder and submitted to Dr. OGDEN, the assistant pathologist to the hospital, who reported the presence of numerous tubercle bacilli. On the 12th one of the ulcers was touched with the solid nitrate of silver; on the 14th three more ulcers were treated, those which were nearest to the urethral orifice being selected for the initial attack, and the bladder being insufflated with aristol after each treatment. The patient was put upon cod-liver oil and iron. On the 26th the sites of the four ulcers first treated were covered by healthy mucous membrane, and several others which had been touched in the interval were in the process of cicatrization. The urinary symptoms were even then much relieved, but the lungs were already invaded, and the patient, being destitute, was unable to continue treatment, and was sent to Tewksbury, where she undoubtedly succumbed to her disease.

CASE 2. MARY F., a widow, 36 years old, of negative family history, appeared at the City Hospital, on December 15, 1894. She complained of a bearing-down pain which was greatly relieved by micturition, and of a very frequent desire to empty her bladder. She was rather pale, but fairly well nourished, and thought herself well, apart from these rather trying symptoms. On bimanual examination of the pelvis, the uterus was found in the second degree of retroversion, very slightly enlarged, movable, and non-tender. (It may be remarked in passing, that treatment of the retroversion had no effect in alleviating her symptoms, and that the retroversion itself proved to cause no symptoms when the bladder was normal.) She was examined at her first visit by the cystoscope, and the bladder was found to be normal with the exception of two small, glistening, rounded papules, one of which was situated immediately behind the internal opening of the urethra, near the median line, and the other somewhat behind this, and to her left. Both papules were touched with a swab moistened in a solution of nitrate of silver, 20 grn. to the ounce, and the whole bladder was insufflated with aristol. This treatment was repeated a number of times between

this date and January 10, without any apparent effect upon the papules, which steadily increased in size and elevation. Both were, at the first visit, about the size of a grain of rice, slightly oblong; and by the end of the first week in January both had become about double their original size. On January 10 the anterior papule persisted, but the site of the posterior one was occupied by a slightly excavated grayish ulceration of about the superficial area of the papule which had preceded it. On January 12 the top of the anterior papule was seen to be ulcerated. In the 10 days between January 5 and 15 the strength of the nitrate solution was repeatedly increased, until on January 15 both the ulcers which occupied the position of the former papules, and were now surrounded by injected areas, were touched with the solid stick of nitrate of silver. Before this was done, a scraping taken with a flattened wire from the surface of both ulcers was submitted to Dr. STOKES, the resident pathologist of the hospital, for microscopical examination. His report stated, "Nothing of diagnostic interest found." From this time on, each ulcer was, as a rule, touched three times a week with the solid stick of nitrate of silver. At the end of three weeks the posterior ulcer was represented by a normal cicatrix. The anterior ulcer was cicatrized, but showed several slightly elevated spots along its circumference. These elevated spots went through the same course which had been observed in the progress of the original papules, and on March 1 the resulting ulcers were recicatrized as before. This spot was finally completely healed on March 20. On February 5 a new papule with injected summit was discovered just inside the internal orifice of the urethra, was treated as the others had been, and like them was healed in about three weeks. On February 20 Dr. OGDEN reported that a specimen of urine submitted to him a day or two before contained tubercle bacilli. This was the only positive result and was obtained after repeated negative examinations by Dr. OGDEN. On February 23 Dr. J. L. MORSE examined the lungs and reported them sound. Between March 7 and April 4 five suspicious papules were detected on various parts of the trigonum, were treated as the others had been, and healed with about the same rapidity. On April 20 a careful and prolonged examination of the bladder resulted in the detection of no abnormalities except that the site of most of the ulcers could be recognized by the presence of a white cicatricial spot surrounded in some cases by a reddened area. All the symptoms had disappeared. The patient returned for observation at increasing intervals, but remained wholly well until on November 30, after an absence of two months, she returned with the statement that she had noticed a very slight increase in the frequency of her desire to urinate. Nothing was found in the bladder at this examination, but two days later a small oval, pinkish papule was discovered just above the internal orifice of the urethra, having probably been missed

at the last examination. After firmly cauterizing this papule with a blunt solid stick of nitrate of silver, the point of which was of somewhat larger area than the papule, I was surprised to find that not only had the papule disappeared, but at the center of the cauterized spot was a small circular excavation of less than half the size of the papule, the appearance of which I have endeavored to indicate in the accompanying diagrammatic cross-section. This change suggests the question of whether the papule was not in effect a pustule covering an already developed ulcer of small size; and this question will be referred to later in the paper.

The history of the case during the next six weeks may be summarized by saying that, although each lesion that was treated became healed after from one to three treatments, new papules constantly appeared. On January 2 the bladder appeared to be wholly normal, and there were no urinary symptoms; but a week later several new papules had appeared in the neighborhood of the right ureteral orifice, and with them there was a reappearance of the frequent and teasing desire to urinate. At the present date of writing, January 22, the new group of papules bids fair to disappear, and the urinary annoyances are very slight.



A, OUTLINE OF PAPULE. B B, AREA OF NITRATE SLOUGH, MADE BY A BLUNT PENCIL OF THE NITRATE. C, SMALL CENTRAL ULCER.

This case has at all events had her disease arrested for a full year by treatment and has had eight months of freedom from urinary symptoms. Whether she is eventually to succumb to the disease or not remains to be proved, but, from the situation of the recent papules above the orifice of the right ureter and the persistence of their tendency to recurrence, I am afraid that the kidney has become invaded, though its palpation is as yet negative. It is, however, only fair to say that she is a widow in poor circumstances, obliged to support herself and child, that her surroundings have been anything but favorable to a phthisical subject, and that she has in fact been almost entirely deprived of the hygienic treatment which we must all concede to be of more importance than any local care. The case seems to me to argue strongly for the advisability of local treatment.

(As this paper goes to press, this patient has again had a normal bladder for more than a month. She has no urinary symptoms, has gained in flesh and strength, and with proper hygiene would probably remain well.)

CASE 3. M. F., of consumptive family history, came to the hospital on May 14, 1895, complaining of frequent micturition accompanied by burning; both symptoms of about eight weeks' duration. The uterus was movable and of normal size. There was

a celiotomy scar in the abdomen, and the patient stated that her ovaries had been removed two years before. On May 18 a satisfactory examination of the bladder was obtained, and three small, rounded elevations, precisely similar in appearance to the papules seen in the two preceding cases, were found on the posterior wall of the bladder, just inside the internal orifice of the urethra. A little mucus was scraped from the bladder wall, but neither in this nor in a number of subsequent examinations of the urine was Dr. OGDEN able to detect tubercle bacilli. The solid nitrate of silver was at once applied to both papules, and the bladder was insufflated as usual. On the 21st two of the ulcerations resulting from cauterization were healthy in appearance; the slough adhered to the third, and its edges were still elevated. It was accordingly recauterized. On June 1 two ulcers had cicatrized, and the third was almost normal in appearance, but was again touched with the nitrate stick. On June 11 the patient was examined by Dr. GEORGE HAVEN, who succeeded me in the service; he detected only some injected patches on or about the sites of the former ulcerations. The bladder was insufflated with aristol, and on June 27 she was referred to the medical outpatient department, with a normal bladder, and, in the absence of gynecological symptoms, she did not visit the medical department, and has not returned to the gynecological clinic. Her relief from a distressing symptom had been so prompt and complete that I think her failure to return argues strongly for her having remained free from trouble.

CASE 4. C. R., of phthisical family history, came to the hospital on June 1, the last day of my service, complaining of much burning on micturition, and of an inability to retain her urine for more than a few minutes. On examination of the bladder, two papules, exactly similar in appearance to those observed in the other cases, were found close to the internal orifice of the urethra, and were touched with the nitrate stick. On June 4 they were retouched by Dr. HAVEN. Unfortunately, no examination for bacilli was made on either occasion. The urinary symptoms disappeared within a few days, and, although she was under regular treatment in the clinic for other pelvic conditions for some time, the records make no further statements of the condition of the bladder, nor are any urinary symptoms referred to. In the absence of any complaint on her part of the reappearance of the symptom which was most prominent when she came to the clinic, it is perhaps fair to assume that she was, at least temporarily, completely relieved.

In summing up the results of the cases reported we see that the relief of the symptoms was in every case so prompt, marked, and undoubted as to require no extensive mention. The value of the method in affording us a means of early diagnosis is upon the whole almost as plain; but there are certain points both in the technique of direct inspection as applied to tuberculosis, and in the light which this method throws on the vesical symptomatology,

which I think will bear a little further discussion; and after that, I may perhaps be justified in offering a preliminary consideration of the probable value of the cystoscopic treatment in the curative management of the disease.

In the study of the diseases of the bladder one learns early that the appearance of the lesions seen varies so widely in accordance with the variations in the intensity and direction of the light, and with variations in the degree of the moisture of the surface, that it is necessary to use great caution and to take repeated observations of any lesion before permitting one's self to form a final interpretation of the meaning of the appearances which it presents. Any one can see with ease the posterior wall of the bladder; and the art of obtaining a full distention of the viscus, of recognizing the ureteral orifices, and of distinguishing the location of a lesion in the bladder, is easily learned after a sufficient amount of practice; but even after this art has been acquired, the same lesion may vary so much in appearances at different sittings, or even in different portions of the same sitting, that a judicious observer will insist upon obtaining the same appearance of a given lesion under varying conditions of light before allowing himself to determine finally upon its character. In the observation of tubercular lesions, there are, moreover, certain inherent difficulties which do not apply to all diseases of the bladder. In inflammatory vesical disease of any moment the diseased appearance is likely to be so widely diffused that the presence of an abnormality is apparent at the first glance into the bladder, but tubercular lesions are seldom surrounded by inflammatory patches of any size, and the whole abnormality is therefore likely to be of such small size as to be easily overlooked, even in the more accessible regions of the bladder. They are, moreover, often found in the regions laterally external to the ureteral orifices; or just inside the internal orifice of the urethra, upon that portion of the mucous membrane which recedes abruptly from this opening; and both of these are localities in which small abnormalities are to be detected with considerable difficulty. We must therefore remember that we can exclude vesical tuberculosis only by a most thorough and methodical search of the bladder, and genito-urinary tuberculosis in general, only by the discovery of some other cause for the symptoms.

Two points should, moreover, raise a suspicion of concealed tubercular lesions in a normal-looking bladder: First, the presence of a small quantity of blood and pus in the urine on microscopical examination of the sediment, in connection with the presence of a frequent and teasing desire to urinate, and with the absence of any inflammatory irritation about the trigonal region; and in the absence, moreover, of any abnormality which could account for the pus in the urine of either kidney on catheterization of the ureters. Second, the presence, on a *normal mucous membrane*, of numerous white spots which can be cleansed from its surface with a swab,

and which probably consist of small flocculi of mucus, such as are constantly seen in *inflamed bladders*, without tuberculosis.

The generally accepted statement that the presence of blood and pus in the urine is characteristic of genito-urinary tuberculosis perhaps deserves a more than passing mention. The presence of blood and pus in quantity is symptomatic, not so much of tuberculosis as of an active inflammatory process, *per se*; but the presence of small quantities of these substances in cases in which the other symptoms of inflammation are absent, and especially when the symptomatology consists in a constant desire to urinate, relieved by micturition, and without pain in the act, is symptomatic of early tuberculosis; more especially when numerous minute blood-clots are occasionally discovered in the urine. An explanation of the frequent presence of microscopic clots in the urine in the early stages of genito-urinary tuberculosis may possibly be offered by the peculiar behavior of one papule under the application of nitrate of silver, which was noted in the description of the second case. Should further observation prove that the ulcers are habitually formed by the bursting of pustules which roof in the already developed ulcers, the clots might well be supposed to be due to minute hemorrhages developed during this process.

The directions in which this advance in our methods of dealing with genito-urinary tuberculosis may reasonably be expected to give us practical aid, are by enabling us to obtain a diagnosis at an earlier stage of the disease than was formerly possible, and perhaps by directly increasing our surgical control of this affection.

The diagnosis of the disease has hitherto rested wholly upon the urinary and constitutional symptomatology of tuberculosis, together with such information as can be obtained by repeated microscopical examinations of the urine for the tubercle bacilli. The most distinctive urinary symptomatology has been already spoken of, but every one recognizes the fact that these symptoms have always been but an imperfect guide in the differentiation of an attack of tuberculosis from the inflammatory diseases of the bladder. The constitutional symptoms of tuberculosis only appear after the disease has reached a somewhat advanced stage, and the bacteriological examination of the urine is admittedly uncertain even in the presence of advanced disease.

The diagnosis of this disease without direct examination of the urinary organs is, then, at best, a very blind one until the constitutional symptoms have become well developed, and in the majority of instances it is then too late to hope for any radical results. The question then arises, How far will the direct inspection of the bladder aid us in obtaining the early diagnosis of the disease, which alone can offer any prospect of a cure? The answer must depend upon the localization of the lesions in the individual case.

When the tuberculosis is primary in the kidney, and the secondary invasion of the bladder is slow in making its appearance, the only aid which the cystoscope can give us is by enabling us to isolate the urine from each kidney for a separate examination; but the possession of the knowledge that the blood and pus detected in the urine came from one kidney only, and from no other source, might well be sufficient to render a doubtful clinical diagnosis more than probable. Moreover, the first case detailed shows that a secondary invasion of the bladder may have occurred at an early stage of the disease, and that a positive diagnosis can sometimes be made by the cystoscope at a time when the medical clinician is still in doubt.

In cases in which the disease is primary in the bladder, and also in those in which the vesical invasion is so early as to be almost coincident, the method will permit of a probable diagnosis from the moment when the first papule appears, and of a positive diagnosis so soon as it has ulcerated. At least it seems to me to be a fair position, to say, that when a suspicion of tuberculosis has been excited by the existence of a frequent and teasing desire to micturate and by the presence of a little blood and pus in the urine, if on cystoscopic examination we find the characteristic papules and ulcers of the bladder, the diagnosis is assured; if papules only are found, the diagnosis is probable, but it is perhaps best to watch the case for a few days or weeks in order to obtain an assured diagnosis, before beginning local treatment. This seems to me to be not too strong a position to take, because the experience which I have quoted above leads me to believe that a negative microscopical examination of the secretion obtained by brushing a swab directly over the affected surface is but little more valuable than the ordinary examination of the urine; but this examination and that of the urine should of course always be made, and made repeatedly, in view of the fact that while its negative results are valueless, a single positive result may afford a positive diagnosis.

I think, then, that we may conclude that the cystoscopic method of examination will be of great assistance to us in the early diagnosis of tubercular conditions, and will, for this reason, indirectly improve the prospect of a cure by ordinary medicinal and hygienic treatment.

I think, too, that even from the results of these few cases we may postulate the position that local treatment is of great value in the palliative relief of symptoms; but the question of whether it is likely to prove of permanent curative value is, it seems to me, a matter for separate consideration, and one which can be determined only by a careful consideration of the nature of the disease, and a study of its natural history under ordinary medicinal treatment.

We are all only too familiar with tuberculosis of the lungs. We all know that for the control of that form of the disease we must depend wholly on the nutritive tonics, on alteration of climatic surroundings, and perhaps on the newly introduced tubercu-

lin. We all know, now, that the common glandular abscesses which were long considered the outcome of a strumous diathesis, are, in the majority of instances, a localized tuberculosis; and we know, too, that with proper surgical and hygienic care, the tendency of these cases is toward recovery, without general infection of the patient; *i. e.*, that in these forms of tuberculosis the local treatment is of perhaps as much importance as the constitutional. The question with which we are now concerned is, With which form shall we class genito-urinary tuberculosis? It is my own opinion that we must assign this form of the disease to a position between the classes of which we have just spoken.

We know that genito-urinary tuberculosis is like the pulmonary form of the disease, in that it is a tuberculosis of a mucous membrane; and that it is like it, too, in the fact that its tendency is toward a fatal ending; but it is unlike tuberculosis of the lungs in that its progress is less rapid, that it tends to remain localized for a long time, and that when unilateral, as it usually is, it commonly begins in an organ which can be extirpated by the knife (or in the bladder, which is still more accessible). We know that there are instances of permanently successful nephrectomy for tuberculosis, and that in the unsuccessful cases the recurrence has usually been localized in the bladder. Is it not then possible that in some at least of these failures the extirpation of the disease was not complete, because there was at the time of the operation a coincident invasion of the bladder (as in the second case reported)? and is it not possible that if a subsequent local treatment of the bladder had been instituted, some of these failures might have turned out successes?

These are, however, only speculations which must be left to the verdict of a wider experience; but the conclusions at which it seems to me that we are already warranted in arriving are: First, that when a suspicion of genito-urinary tuberculosis arises in a female we fail in our duty to our patient if we do not subject her to a searching local examination of the urinary organs; second, when a diagnosis has been made in the early stages, we should at once institute the most thorough course of constitutional treatment which the situation of the patient renders possible, in combination with a prompt local treatment of any accessible lesions; third, that with the early diagnosis which the use of the cystoscope makes possible, an early cure of the vesical lesions by local treatment may yet enlarge the field for nephrectomy; fourth, and most important, that local treatment affords a most surprisingly rapid means of alleviating distressing symptoms which have remained unaffected by medicinal treatment, and that this is true even in cases in which all hope of a cure must be laid aside.

Boston, Mass.

Incognito Charity.—The Ithaca City Hospital recently received a gift of \$4000 from an anonymous source.

WHY DO CRIMINAL ABORTIONS GO UNPUNISHED?*

By ROBERT C. TAYLOR, Esq.

Counsel to the Medical Society, County of New York

IN answer to the frequently recurring question why criminal abortion should be so common, and yet why the perpetrators should be so rarely brought to justice, a few words of critical analysis may not be untimely. Ill-considered and hasty thought may place the blame upon incompetent or supposedly complacent prosecuting officers, but would such a conclusion be sound? A brief review, from the standpoint of the prosecuting officer, will show what difficulties he has to surmount.

As all laws are of value only as they reflect the sentiment of the people at large, we note by way of preface that "the practice of destroying the fetus *in utero*, to say nothing of infanticide, history declares to have obtained among all the earlier nations of the world, the Jews alone excepted, and to a very great extent. ARISTOTLE defends it, and PLATO. It is mentioned by JUVENAL, OVID, SENECA, and CICERO, and is denounced by the earlier Christians. It was common in Europe through the middle ages, and still prevails among the Mohammedans, Chinese, Japanese, Hindoos, and most of the nations of Africa and Polynesia, to such an extent that we may well doubt whether more have ever perished in those countries, by plague, by famine, and the sword" (STORER and HEARD: "Crim. Abor.," p. 31).

We, of this day, may agree with the old writer that the slaughter of the innocents is "a thing deserving all hate and detestation, that a man in his very originall, whiles he is framed, whiles he is enlived, should be put to death under the very hands and in the shop of nature." Yet we must take into consideration the markedly small size of the modern family, and read that circumstance in connection with the fact that the expense of living continually increases, as civilization makes man's tastes more elaborate and his needs more diverse. We know also that you cannot by statute regulate the natural impulse of man; and that the human impulse, of which criminal abortions are one of the after-results, is the most uncontrollable of all.

The conclusions which flow from these considerations are natural. That which the law cannot control, and yet seeks to punish, is thereby rendered secret in its performance; and, in natural consequence, punishment is rendered difficult, and often impossible.*

With this preface, we may consider at once the position which the district attorney occupies when called upon to prosecute a case of abortion.

We note in passing that the word abortion, as commonly used, involves the idea of two crimes: one, the crime of abortion, properly so called, when no death of the mother ensues; and the second, manslaughter, when the victim dies. The reader will be left to keep this distinction in his mind.

If the woman does not die, it is hardly possible for the crime ever to come to light. Every person involved in the affair, whether actively or passively, directly or indirectly, is, for his or her own sake, pledged to secrecy. In fact, no explanation is needed of the practical impossibility of securing convictions in such cases. Upon the other hand, if the victim dies, the fact that a crime has been committed may then transpire; but the difficulty of fixing guilt upon any given individual still remains.

Mere circumstantial evidence is manifestly of but little weight. It is obvious that if a miscarriage is legitimately procured to save the life of the mother or of the child, the same external circumstances would, in large measure, obtain as would obtain where the act had been criminal. The difference between the justifiable and the criminal act lies ultimately in the INTENT with which each has been performed; and some reasonable proof of the criminal intent and purpose must be shown or the prosecution will fail. It is precisely at this point that the great obstacle in the way of the prosecution is to be found.

The victim is dead, the defendant cannot be called upon to criminate himself or herself; and any immediate witnesses of the transaction are in substantially the same position as the defendant. In fact and actual practice about the only possible proof of criminal intent is in the dying declaration of the victim, if the prosecution is fortunate enough to have the evidence of such a declaration.

In view, then, of the prominence which the dying declaration occupies in matters of this sort, we may fittingly explain its object and its limitations with some care.

As is well known, the evidence upon which a conviction rests may not be incompetent; and one of the chiefest classes of incompetent evidence is that known as hearsay. This, for the most part, consists of information derived not from actual perception of our senses, but from the relation and information of others who have had the means of acquiring actual knowledge of the facts. But for the reason that the person from whom the information proceeds is not under the sanction of an oath, and cannot be subjected to the ordeal of cross-examination, the great tests which enable truth to be confirmed or falseness shown are lacking. Moreover, as people in the common concerns of life act upon hearsay and report for the most part, they would naturally be inclined to give such evidence credit when acting judicially, and would be apt to forget how little reliance should be placed upon evidence which can be so easily and securely fabricated.

Necessity has, however, required that in some instances exceptions be made to the rule excluding hearsay; and, as one of these exceptions, dying declarations are admissible, in certain cases, where the declarant is at the point of death and believes that all hope in this world is gone. As is the case with other exceptions, however, the dying declaration must be brought strictly within the rule in order

* Written specially for the BULLETIN.

to be admissible; and its proof is technical and difficult to the last degree, and affords the defendant's attorney ample opportunities of winning his client's case.

In the first place, as to the admissibility of the declaration, the law has wisely made such declaration admissible only where the declarant is at the point of death and believes that all hope in this world is gone. It is the solemnity of the occasion which is the sole guaranty of the truth of the statement, and justifies its admission, although the person making it is neither under oath nor able to be cross-examined. Obviously, the preliminary proof that the relator believed that all hope in this world was gone, is most difficult. "While there is life there is hope" is no idle truism, and it is almost impossible to prove satisfactorily that the relator believed herself to be in the immediate presence of death and without hope of recovery.

Upon the other hand, supposing the declaration to be admissible, it is entitled at best to but little weight. If the declarant is shown to be at the point of death her statements are deprived of much of their credibility. In many cases they are no more than mute answers given by signs to questioning bystanders, by a person whose reason is clouded, and whose will-power no longer exists. Furthermore, the witnesses who hear this declaration are possibly in no position to weigh it carefully; so that the total result may be no more than the vaguest of charges against the accused person, lacking all precision and definition.

Upon this proposition, that the dying declaration is of but comparatively slight weight, a case decided by the Court of Appeals within the last month is immediately in point. In that case the Recorder charged the jury that the dying declaration should be "given all the sanction of evidence which the law can give to evidence." The General Term set aside the conviction upon the ground that this charge was erroneous and was calculated to prejudice the jury, and afterward the Court of Appeals affirmed the General Term. Abundant reasons are given to show the inherent weakness of such evidence. As it happened, in the case before the Court, the defendant was ultimately discharged because the weakness of this evidence was not admitted by the judge, who, upon the contrary, directed the jury to give it full weight. (*People v. Kraft*, 148 N. Y., 631.)

Keeping these considerations in mind, it is no wonder that so many prosecutions of the character we are discussing fail. Immediately upon hearing of a suspicious death the police arrest all who can be fairly or unfairly suspected. Thus at once and most effectually the means of obtaining further evidence are foreclosed. The coroner or the committing magistrate is authorized to hold for trial upon very slight evidence; but the district attorney cannot be expected to convict except upon evidence which carries conviction with it. He must take the case as he finds it, with little or no opportunity

of working it up into better shape, nearly every avenue of investigation being closed to him.

Although it is to be regretted that all criminals may not be brought to justice, yet it would be intolerable if the rules of legal proof were so loose that innocent persons might be made to suffer for crimes they never committed. Physicians who have attended in good faith in cases of this character have often been accused of complicity, and they, of all persons, are interested in having inquiries of this sort conducted decently and in order. The explanation of the small number of convictions, in comparison with the number of cases in which crime is believed to have been committed, lies in the secrecy with which this crime, in its very nature, is surrounded; and in the fact that such proofs as are attainable rarely do more than cast a strong suspicion of guilt upon the person charged with the offense.

New York; 253 Broadway.

INCISION OF RETRO-PHARYNGEAL ABSCESS ACCORDING TO ANTISEPTIC PRINCIPLES: FROM THE NECK *

By WILLY MEYER, M.D.

Professor of Surgery at the New York Post-graduate Medical School and Hospital; Attending Surgeon to the German and New York Skin and Cancer Hospitals; Consulting Surgeon to the New York Infirmary

THERE can be no doubt that if we have to open a deep-seated abscess situated in the neighborhood of the large cavities or canals of our body, it is better surgery to do this from the outside than to penetrate the wall of the cavity from within. The latter procedure certainly is nearly in every instance more simple, but it is less safe, and not in accord with antiseptic principles.

The prostatic and retro-pharyngeal abscesses are types of this class of cases. I have recently advocated, in incising the prostatic abscess, to always give the preference to the perineal route instead of piercing the rectal wall, and based my plea on a personal experience of four cases successfully operated in this way.¹ To-day I beg leave to call the attention of this Section to the incision of the retro-pharyngeal abscess from the side of the neck as being greatly superior to the old method of a direct pharyngeal incision through the mouth.

Of course only the non-perforated retro-pharyngeal abscess is here considered, viz. where the pus is still confined to the retro-visceral space. Where it has spread toward the lateral surface of the neck, having passed under the external cervical aponeurosis outward from the vascular bundle, a direct incision from outside is self-understood.

It is true the so-called idiopathic retro-pharyngeal abscess, which is in most instances due to an acute purulent inflammation of the lower retro-pharyngeal lymphatic glands, has often been cured by an incision through the mouth.² But in small

* Read before the Section on Surgery of the New York Academy of Medicine.

¹ *New Yorker med. Monatsschrift*, 1894, No. 1.

² F. T. BOKAI: Sollen wir den idiopathischen Retro-pharyngealabscess von aussen oder von innen eröffnen? *Pädiatrische Arbeiten*, Berlin, 1890, pp. 371-378.

children, with marked dyspnea caused by a deep-seated abscess, this procedure may be difficult and dangerous. We have to dispense with narcosis and its advantages; the antiseptic treatment, proper irrigation and drainage are rendered impossible.

In view of the two latter points (proper irrigation and drainage) the incision from the neck will be decidedly the preferable one in all retro-pharyngeal abscesses of septic origin. It is often possible by this operation to extract a sharp foreign body which may have been swallowed and has been arrested behind the cricoid cartilage before it has created an inflammation in the prevertebral space.³

That before all, the prognosis of the *tuberculous* retro-pharyngeal abscess will be materially benefited by the "antiseptic incision" is evident. In all other parts of our body every surgeon tries nowadays, not only to give proper exit to the tuberculous matter, but to perform the operation under careful antiseptic precautions, to scrape and iodoformize the cavity, and to conduct the after-treatment also in a strictly antiseptic manner. Queer enough to say, up to the present time the majority of surgeons have exempted from this rule the tuberculous abscess caused by "cervical" spondylitis. Antiseptic or aseptic methods have here simply been ignored. A direct communication was intentionally established between the mouth and the abscess, an occurrence which in other operations on face and neck is always avoided with the utmost vigilance. If such an opening is accidentally established during the operation it is considered an annoying complication. How many patients may have died with, perhaps even in consequence of, this incision by putrid infection of the abscess cavity; how many may have been injured by aspirating or swallowing tuberculous material; how many may have had an abundantly running sinus at the posterior pharyngeal wall, is not easy to determine. KRAMER looked up a number of hospital reports of the last 10-15 years with reference to these points.⁴ No special information was gained therefrom. They do not give the final result of this operation. They only deal with the further development of the original disease—cervical spondylitis. I am, of course, fully aware that almost every surgeon who is accustomed to incise the tuberculous cervical (retro-pharyngeal) abscess through the mouth has seen some patients cured in this way. But he has certainly never been able to carefully explore, then, the abscess-cavity with his finger, to feel a cariotic spot of the vertebra, to extract a tuberculous sequestrum, to pack the cavity in all its angles with iodoform gauze. All these advantages are offered by incision from the neck.

Two ways have been proposed for this purpose. In 1877, CHIENE, of Edinburgh, recommended to make an incision from the mastoid process down alongside the posterior border of the sterno-cleido-

mastoid muscle and then to go bluntly down with finger and probe to the anterior aspect of the vertebral bodies. By dividing the deep fascia and retracting anteriorly the muscle with the complexity of vessels, the retro-pharyngeal space is quickly reached. BOÉCHAT⁵, WATSON, CHEYNE⁶, BURREL⁷, of Boston, and SACCHI⁸, have successfully tried this operation.

The second method has been advanced by BURCKHARDT⁹, of Stuttgart, in 1888. He said: If one cuts down at a level with the larynx on the inner side of the sterno-cleido-mastoid muscle, through skin and platysma, the vessels of the thyroid gland are first encountered (a larger or smaller subcutaneous vein which may communicate with the thyroid vessels is to be caught between two artery-forceps, cut and ligated). Between them on the outer, and the larynx on the inner, side the inner border of the common carotid is quickly exposed by blunt dissection. As no branches are here given off from the main trunk, one may safely make, in the depth, an incision with the knife just at the side of the larynx, or rather the lower end of the pharynx, into the thickened tissue, which is generally found here in these cases on account of the neighboring purulent inflammation. If this incision is then enlarged by opening the branches of a slender dressing-forceps or similar instrument, the retro-pharyngeal space is fully and easily accessible.

BURCKHARDT illustrated this operation by the interesting histories of three cases which were thus successfully dealt with, in 1886 and 1887. According to publications after him, in Europe, only KRAMER (one case) tried the operation to his fullest satisfaction¹⁰.

As far as I was able to find, no mention has yet been made of this operation in American literature.

My personal experience with Burckhardt's incision has been gathered on four patients, whose histories I shall now state as briefly as possible.

CASE I. Man, 46, sick for two weeks with erysipelas of the nose, pharynx, and face, which had its origin in a small scratch-wound in one of the nostrils. Within the last four days the inflammation of the skin and mucous membrane had gradually subsided, but the fever had continually risen. Pneumonia of the right lower lobe was found. A continually increasing difficulty in swallowing was also noticed. Finally the patient was unable to swallow fluids. Every drop was regurgitated. When I saw the patient in consultation, October 10, 1888, temperature was above 104, pulse weak, 132, condition very critical. The finger pushed down alongside the posterior wall of the fauces just reached with its tip a

⁵ *Bull. méd. de la Suisse romande*, 1880, No. 12.

⁶ *Med. Times and Gazette*, 1881, p. 254.

⁷ Transactions of the American Orthopedic Association, 1891, p. 163.

⁸ *Gazz. degli ospitali*, 1892, No. 75; rep. in *Centralbl. f. Chir.*, 1892, p. 846.

⁹ *Loc. cit.*

¹⁰ *Loc. cit.* DR SAINT-GERMAIN also opened a retropharyngeal abscess with an incision in front of the sterno-cleido muscle. (*Revue des Maladies de l'Enfance*, 1888, p. 360.) There was, however, a swelling of "a small egg (hen's) size," where the incision was made. The abscess thus was not confined to the retro-visceral space any more; it had perforated. As mentioned above, such cases were excluded from the scope of this paper.

³ BURCKHARDT reports a very interesting case of this kind. *Centralbl. f. Chir.*, 1888, p. 59. Case 3.

⁴ *Centralbl. f. Chir.*, 1892, p. 234.

soft elastic swelling, which was painful on pressure. My colleague's diagnosis of retro-esophageal abscess was confirmed and immediate operation decided upon as an "indicatio vitalis," in spite of the well-developed inflammation of the lung. Under chloroform-narcosis Burckhardt's incision was made through the left lateral aspect of the neck. The inner border of the common carotid was easily reached and a large abscess evacuated by penetrating its wall with a grooved director under the guidance of the finger. No bare bone was detected. Irrigation; drainage; antiseptic moist dressing. The abscess evidently was a septic one caused by an infection of the prevertebral lymphatic glands with the coccus erysipielatis. Immediately after the operation the patient was able to swallow, and a few hours later he also partook of a semi-solid diet. But he remained feverish, with a weak and rapid pulse. He died, two days later, of heart-failure due to the pneumonia. He had been able to swallow with ease until his death.

CASE II. GEORGE W., 4 years old, for several months afflicted with cervical spondylitis, had lately experienced some difficulty in respiration, especially when breathing through the nose; he snored when asleep, and always kept his mouth open. Voice thick. Admission to the German Hospital. On examination a swelling was seen on the posterior wall of the fauces, at a level with the uvula. It presented the lower circumference of a retro-pharyngeal abscess, which filled a great portion of the nasopharynx. The finger pushed up behind the soft palate just reached the upper end. Should this tuberculous abscess be opened from the mouth? Could it be evacuated with the incision from the neck? Personally resolved to treat all these abscesses according to the same rules as tuberculous abscesses in other localities, I rejected the first plan, and made Burckhardt's incision on the left side of the neck, head being lowered, December 12, 1888. Without any special loss of blood the retro-visceral space was opened on the inner border of the common carotid. It was not infiltrated. As already stated, the abscess was behind the soft palate, thus occupying a much higher level than is usual. With great ease, but care, the index finger of the left hand was now gently pushed up between the posterior wall of the pharynx and spinal column to the seat of the abscess. With this finger in position, and the index finger of the right hand on the abscess-wall in the pharynx, fluctuation was distinctly felt. A slender curved dressing-forceps, introduced alongside the volar aspect of the left index finger, now penetrated the wall. Tuberculous pus escaped. A small spot of the body of about the fourth vertebra was found bare of periosteum. No sequestrum present. The cavity was now gently scraped with a long Volkmann's spoon, then wiped and dried with a sponge on a handle, and after sublimate irrigation syringed with a 10-per-cent. solution of iodoform-ether. A drain was introduced, and an antiseptic dressing applied. Traction on the head, with Glisson's sling over pulleys; upper end of bed

raised for countertraction. On the following day the little patient was doing very well, had no pain, no fever. He easily breathed through the nose. On changing the dressing, which had somewhat moved down on the following day, the drainage tube was found to have slipped out of the abscess. It was not reintroduced. The further history is of no special interest. The boy stayed in the hospital for six weeks, when the sinus had closed. He was discharged with a well-padded pasteboard-splint, which supported his head. A few weeks later the wound reopened. Patient was again admitted to the German Hospital, and the carious vertebral body scraped by Dr. GERSTER. Soon after the wound definitely closed. On October 9, 1889, patient was presented to the New York Surgical Society¹¹, and on October 28 to the Scientific Society of German Physicians. I then had intended, in order to maintain the present good result, to apply a Sayre's plaster-of-paris jacket, with jury-mast. The patient, however, was lost sight of.

A very similar case, also successfully operated according to Burckhardt's method, has been lately described by KRAMER.¹²

CASE III. GUSTAV S., 18 months old, with a tuberculous family-history, has a marked retro-pharyngeal abscess on the left side of the fauces; all the characteristic symptoms are present; cyanosis marked. Seen by me in consultation in the evening of March 12, 1892. Operation from without decided upon, and performed the following morning. During the night child very restless. Some pus has escaped through the nose. Operation, under chloroform-narcosis and recumbent posture, not as easy as usually experienced on account of continually impeded respiration and dense adhesions between the deeper tissues of the neck. In opening the retro-visceral space no pus escapes (this had been anticipated, as the pus had continually oozed out during the night, as well as during the course of the operation); but the sharp spoon, guided with due care, brings out a good deal of distinctly tuberculous granulations. Bone nowhere bare. Careful disinfection and iodoformization of the cavity; no irrigation on account of its direct communication with the fauces. A medium-sized drainage tube is introduced into the depth of the wound, around it strips of iodoform gauze are loosely packed. Dressing. (Respiration still very troublesome and intermittent. A silk thread is therefore pulled through the tongue and the parents are instructed to hold a wooden mouth-gauge between the teeth and pull the tongue out as long as necessary. It took a couple of hours before the respiration was normal again.) No extension of head. Perfect recovery within six weeks in spite of a severe pneumonia of the right lower lobe, which set in three days after the operation. Wound definitely closed on April 28. It did not open up to date. No stiffness of neck. In this

¹¹ The report of this meeting has not been published in the *N. Y. M. J.* *loc. cit.*, as was the rule at that time.

¹² *Loc. cit.* This case was operated upon October 15, 1891; my own on December 12, 1888, as mentioned before.

case the external operation was still selected, in spite of the internal perforation.

CASE IV. MARY E., 7 weeks old, was seen by me in consultation on September 13, 1892. There was a marked retro-pharyngeal abscess on the right side, which off and on troubled the child's respiration, but still allowed her to nurse. Family history negative. Operation on the following day in Rose's posture and chloroform-narcosis. This time the tongue was at once secured by a silk thread and pulled forward by this means. The annoying difficulty in respiration experienced in the last operation was thus easily avoided. When the inner border of the common carotid had been exposed, and the artery held aside with the finger, the abscess bulged out into the wound. An incision was made with the knife and enlarged with the finger. A great amount of pus escaped. Vertebrae uninvolved. Disinfection, drainage, and dressing as before. Gauze-tampons removed on the sixth, tube on the thirteenth, day. Uninterrupted recovery. Wound definitely closed on October 19, five weeks after the operation.

These are all my cases of retro-pharyngeal abscess, Mr. Chairman, operated on by me according to Burckhardt's method. In every one I have been impressed with the comparative ease with which it could be performed even, as you have heard, in babies. In view of the possible dangers which may later set in, and the disadvantages which are connected with the incision of retro-pharyngeal abscesses through the mouth, I do, therefore, not hesitate to pronounce it *the duty* of the surgeon to-day to discard the old method and to let also the treatment of these abscesses benefit by the blessings of antiseptic surgery. I personally must confess that I would never operate on a retro-pharyngeal abscess any more by any other route than from the neck, unless the symptoms were so urgent and the child so much run down as to render the narcosis too great a risk. But in that condition chloroform may be dispensed with. The patient, in his dazed condition, will not feel the knife. Cocaine might also be used. It will, of course, be in the hands of the attending physician never to allow his case to run to this extreme, but rather to make the diagnosis in due time. If one has reason to fear general narcosis in weak babies under one year, the direct pharyngeal incision has, of course, to be resorted to; also in those female patients with non-tuberculous, retro-pharyngeal abscess, where the parents or relatives are opposed to an external incision on account of the resulting scar on the neck.

Summing up, I beg to offer the following conclusions:

1. In cases of impeded respiration, the differential diagnosis of the affections in question should be made as early as possible by gentle digital exploration of the patient's fauces.

2. If retro-pharyngeal abscess is present it should be opened by an incision from outside and not through the mouth, except in weak babies under one year, who seem to be unable to stand general narcosis.

3. This is of especial importance in the tuberculous abscess, as digital exploration of the cavity can be made with leisure, and the proper antiseptic after-treatment applied as practiced in similar troubles in other localities of the body. Although this operation is especially designed for low-seated retro-pharyngeal abscesses, it can be successfully employed for those situated high up and even behind the uvula, as shown by my second case and the case of KRAMER.

4. If a swallowed sharp, foreign body has perforated the pharyngeal or esophageal wall, this body may be extracted with the help of this incision before an abscess has been caused, or at least before it has spread too far (BURCKHARDT).

5. The operation is not difficult and presents no special dangers. It should be performed with the patient in Rose's posture.

6. It has yet to be determined which incision deserves preference, whether that behind the sternocleidomuscle (CHIENE) or that in front of the same (BURCKHARDT).

Ichthyol in the Treatment of Adherent Fibrous Tumors.—JULES CHÉRON (*Rev. Méd.-chir. des Mal. des Fem.*, 1896, February 25)

In certain cases of fibrous tumors of the uterus, the patient suffers from extreme pains in the abdomen. These pains are often due not so much to the size of the tumor as to the adhesions that exist at the periphery of the fibroma. These adhesions are the result of circumscribed inflammation of the peritoneum enveloping the tumor. In such cases, the author has obtained rapid improvement by the use of ichthyol applied as a glyceride to the vagina or as an ointment to the abdominal walls, and taken at the same time internally in the form of capsules.

The vaginal applications are made by means of absorbent cotton saturated with the following:

Ichthyol..... 1 part
Glycerin..... 15 parts

If, after a few applications, the patient complains of an irritation of the vagina and of the vulva, the author has recourse to a weaker solution, thus:

Ichthyol 1 part
Glycerin 20 parts

As regards the ointment, Dr. C. recommends that soft soap (green soap) and extract of digitalis, both potent resolvents, be associated with the ichthyol, thus:

Ichthyol. 5 parts
Extract Digitalis 2 parts
Soft soap 4 parts
Vaselin 20 parts
Lanolin 20 parts

With this ointment inunctions are made every night upon the abdominal walls, and the ointment is allowed to remain on over night. The following morning the remedy is removed by washing with lukewarm water; if it be allowed to remain during the day also, an irritation of the skin might set in which would necessitate the suspension of these applications for some time.

Finally, ichthyol taken internally has a tonic action on the stomach, relieves arterial tension, and favors the resolution of the periuterine exudates in general, and of the peribromatous adhesions in particular. Dr. C. prescribes the ichthyol in pills, each containing 0.1 gme. (1½ grn.) of the drug, one to be taken before meals.

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RECRUITS TO THE MEDICAL PROFESSION.—The season of the year has arrived when scores of medical schools throughout the land are graduating scores of physicians who, it is to be hoped, one and all, have been thoroughly trained, and will meet with that meed of success which honest endeavor during the term of medical instruction and high purpose for the good of humanity should bring. A word of advice, and possibly of warning, may not, however, be out of place, since many of these new graduates are bound to meet with disappointment, and since some of them are likely to start in their career in the reverse of the right direction. It is an axiom that, given good training, average ability, pluck, and stability, there is room in this land for every one, if he but have sufficient capital to enable him to live during the necessarily long years he must wait before he begins to make from his profession even a scanty living. It is the exception that a young graduate possesses at the start influence or help sufficient, and of the proper caliber, to enable him to start in life with a boom. Especially is this the case in our large cities, and, in a measure, the same statement holds for the country districts, which are, as a rule, already well supplied with medical men.

The road which the average new graduate will have to travel will thence be a very hard one, and without doubt many a one will drop at the wayside, weary of waiting, and despairing of success, before the year is out. Let his comfort be, that he thus is simply doing what scores of others have done in the years gone by. It is no reflection on his ability or on his merit. The result has been the necessary outcome of the fact that he adopted a profession without possessing the amount of money requisite to give him staying power during the early years of his struggle. In short, too many men undertake the study of medicine without being advised that there is no royal road to success, that the struggle is bound to be hard and bitter, that the competition is keen, and is becoming keener every day, owing to the boundless charity shown the sick and the suffering, too often irrespective of their pecuniary status. In short, the medical man is without protection from without and without protection from within. The great public imposes on him to a greater extent than any other profession is subject to, and the profession itself makes the highway of its young medical brother very hard by allowing itself to be imposed upon and by being too often a party to such imposition. The professor must have his clinical material and the interesting case must be shown the student irrespective of the fact that the material utilized consists not alone of the needy, but of the comfortably off. Here we find one reason why the lot of the young medical man is bound to be a hard one.

A further reason lies in the act of the young medical man himself. Many a graduate, puffed with self-conceit, thinks, because he holds a learnedly written diploma and has seen a number of operations of a special nature, that he is fitted to begin his career at once as a full-fledged specialist. No greater error can the graduate avoid. Specialists are neither born to the purple nor are they made by three years' study. It is the acquisition of knowledge through years of personal observation and of practice which fits the average man for a specialty, and disappointment is bound to come to the graduate who, in forgetfulness of this fact, at once after graduation announces himself as a specialist in skin diseases, obstetrics, eye and throat, or, in that very popular specialty, the diseases of women. If the scores of young graduates now being turned loose on this and other communities will only weigh well the question of adaptability to a special practice, they will reason out for themselves why it is a mistake on their part to rush into one before they are

really competent to cope properly with diseases of the body at large. This country now has far too many *crude* specialists. It is they who cast disrepute on American medicine and surgery. It is they who ruin the value of our statistical data, reporting as they do incomplete and immature operations, lauding to the skies new methods which their seniors in the profession would be desirous of testing for years before accepting as at all adequate or proper. The young graduate should make up his mind firmly that the danger in a specialty, to himself, his brethren, and the community, lies in the fact that rarely can a special organ or set of organs be at fault unless the system at large is affected either primarily or consecutively. Therefore that man is a very poor specialist, and remains such, who does not look beyond the organs which come under the heading of his specialty—indeed, who does not question every organ of the body before he reaches the conclusion that one set is at fault. Defective training, immature judgment, biased thought—such qualities lie at the bottom of the scores of defective and deficient specialists who run riot over this country and make the laity, and often the profession, sigh for the good old times when the general practitioner was in full sway, treating the body and not an organ, and succeeding frequently under the guidance of common sense, where to-day youthful enthusiasm, immature action, illogical method—under the guise of a specialty—fail.

The BULLETIN's greetings to the young graduate, therefore, are tinctured with the advice that he be prepared for disappointment, especially if he rushes into a specialty.

THE CURABILITY OF LEPROSY.—Dr. GEORGE H. Fox is authority for the statement that 10 years ago a leper was treated in one of the New York hospitals and was discharged, after an interval, cured, although the disease was in an advanced stage. He thence claims that leprosy should not be looked upon as an incurable and progressively fatal disease, as is generally believed. The trouble is that the sufferer is led to think that he is beyond hope, and is sent to a lazaret, where he receives insufficient food and very little treatment, at the same time losing the loving care of relatives and of friends, who look upon him as a pestilence to be avoided. If this man were, instead, placed under the best hygienic surroundings, and received ample food and the benefit of such remedies as suggest themselves, the result might be vastly different. Facts certify that leprosy is no more dangerous than is consumption. While

there is danger of contagion, even as holds for syphilis, for example, the leper should not be viewed as the terror which he is pictured to be in Holy Writ, whence, by the way, the popular impression of the leper is derived.

FACTS AND FIGURES.—Do the readers of certain medical journals appreciate the fact that the statements on the title-pages in regard to the number of pages printed in each issue do not apply to reading matter, but include the advertisements? Probably the average subscriber to these journals pays his money in order to secure original articles, reports from clinics and from medical societies, and not in order to read a great wealth of advertising matter. If the trouble be taken to count the pages in the next issue of certain journals it will be found that the great claim advanced simmers down to one-half when the advertising pages are excluded. It would be wise for medical men when they subscribe to a journal to consider two factors—first, which journal is going to give them the best literary thought, and, secondly, which journal publishes only advertisements which can be depended on for the character of the product advertised. With pardonable pride the BULLETIN may state that it advances no claims which it cannot justify. Its reading matter consists of at least 32 honest pages, and as many more as may be needed. The advertising pages speak for themselves, and do not have to be counted in the list of the literary pages in order to make a showing.

“ANIMAL FRIENDS” AND VIVISECTION.—The organ of the Society for the Prevention of Cruelty to Animals, in its March issue, takes the position which, in all probability, is held by all scientists of repute in reference to the question of vivisection. It states: “We have constantly maintained that all *needless* experiments upon living animals ought to be prohibited; that the cutting of living animals by students for the purpose of acquiring surgical dexterity is unnecessary and ought to be prohibited; that the repetition of experiments before classes of students for the mere purpose of demonstration is likewise useless and ought to be prohibited; and that the use of anesthetics ought to be required in every case in which they can be applied.” If doubtless well-meaning, but very biased, anti-vivisectionists would stand upon a similar platform, and cease misrepresenting the profession and scientists as a body, this question of experimentation on animals for the good of that higher animal, man, would be settled in short order. Unfortunately, they rest content with hash-

ing and rehashing fabled and worse than imaginative stories about the exceeding cruelty of teachers and students of physiology, deliberately shutting their eyes to facts of every-day occurrence, which are endowed with greater essence and spirit of cruelty than scientist was ever guilty of when the possible good of mankind was concerned.

Thus we note, and we warmly commend this matter to the reprobation of rabid vivisection critics, that the other day, out of the spirit of idle curiosity, a string was tied to the hind-leg of a rat and the animal was introduced into an elephant house for the purpose of determining if indeed this pachyderm could be frightened by the rodent. The sum total of this useless experiment was the frightening of the huge beasts nearly to distraction and the stamping of the life out of the rat and also of a paralyzed guinea pig, which was also experimented with. Now mark that full-grown men, out of pure curiosity, were guilty of this useless experimentation, and not irresponsible children or scientists endeavoring to discover some fact of value to humanity! This is a further instance of the cruelty which is constantly being committed and which receives no loud protest, while to-day, even as for years, the physiologist is damned for testing, on the lower animals, drugs or operative procedures which some day might save the life or cure the disease of even those who were guilty of causing mental pain to the elephant and physical suffering to the rat. Do the rabid anti-vivisectionists see the difference?

THE ADVERTISING AND THE SALE OF SO-CALLED ABORTIFACIENTS.—A subscriber writes in commendation of an editorial in a recent issue of the BULLETIN wherein a determined stand was taken against abortionists, and asks us why, in view of the fact that abortion, unless indicated from a scientific standpoint, is a crime, the law does not forbid the sale and the advertising of drugs which are assumed to have the power of causing abortion. The BULLETIN referred this question to its legal expert, Mr. ROBERT C. TAYLOR, the counsel to the Medical Society of the County of New York, and received the annexed reply:

Answering your favor of the 26th of March I would briefly say that Section 297 of the Penal Code reads as follows:

“A person who manufactures, gives, or sells an instrument, medicines, or drugs, or any other substance, with an intent that the same may be unlawfully used in procuring the miscarriage of a woman,” is guilty of a felony.

It is enough to say that from the mere advertise-

ment it would be almost impossible to show criminal intent upon the part of the advertiser.

As I understand, the same drugs and instruments might be used legitimately. Hence you can see the necessity of proving the criminal intent. This would be very difficult to do.

As far as prohibiting the publication, in the daily press, of advertisements of such articles is concerned, it is enough to say that the Constitutions of the United States and of the several States expressly provide for freedom of speech and of the press (U. S. Cons., Amendment No. 1). A law might possibly be passed, but it would not be of much value.

The sum-total of the matter, therefore, is that a person cannot give or sell a so-called abortifacient with the intent of causing miscarriage, and yet the public press may openly advertise the same article. Of course the answer of the public press is that it is not its business to inquire in regard to the therapeutic properties of a drug or instrument, and, similarly, the answer of the man who sells or the man who prescribes will ever be that the drug was not intended to be used for criminal purpose, and this answer will usually be sufficient, since any of the so-called abortifacients, granting that any of them possesses the property of causing the uterus to shed the product of conception, have other therapeutic properties. The weak point, therefore, lies in the law, and, as Mr. TAYLOR suggests, it might be well to take steps to have the law made more specific, even though when enacted it would not have much value.

GOSSIP AND MEDICINE.—It is reported that a very distinguished English obstetrician has been mulcted in a heavy sum because he was indiscreet enough, to put it mildly, to make statements to his wife reflecting on the character of a patient. This lady, the wife of the medical man, happened to be a gossip, and, naturally, retailed the information she had secured from her husband. As a result suit for defamation of character was brought against the medical man, and, the facts having been proved, heavy damages were assessed. This is not a sufficiently heavy punishment. The obligations of the professional man to his patient are of the most sacred nature.

The secrets which are committed to him, or which he finds out in the course of his examination or treatment, should be whispered to no one; and the medical man who proves recreant to this sacred duty should not alone be fined heavily in a law court, but should be visited with the heaviest punishment which his professional brethren can inflict, that of *ostracism*.

GENERAL MEDICINE

Department Editors

WILLIAM CHARLES GUTH, M.D.

and

HENRY TURNER BROOKS, M.D.

Collaborators

ADOLPH ZEH, M.D., ADOLPH BARON, M.D., JOHN HOCH, M.D., WILLIAM VISSMAN, M.D., WILLIAM Y. FINCH, M.D., GEORGE W. BLANCHARD, M.D.

A New Method of Sterilizing Catgut.—E. SAUL (*Berlin. klin. Woch.*, 1896, No. 2, p. 45)

The raw catgut is boiled about fifteen minutes in the following mixture:

Carbolic Acid	5.0
Water	10.0
Alcohol	85.0

On account of the difference in the boiling-point of these substances, an apparatus for condensing and returning the vapor is necessary, as pressure must be avoided. This procedure may be repeated as often as desired without injury to either the catgut or the solution, as the solution is stable and, with ordinary precautions, does not deteriorate. The sutures kept in this solution are rather hard, but if they are transferred to sterile 90-per-cent. alcohol they are softened somewhat and more desirable for use.

The Effects of Cooling upon the Organism of Warm-blooded Animals.—P. KNOLL (*Arch. f. exp. Path. u. Pharmacol.*, 1895, XXXVI, Nos. 3-4, pp. 305-324)

The observations of the author show that, by infusion of cold physiological salt-solution into the vascular system of rabbits, it is possible to lower the rectal temperature of these animals from 12 to 25° C. within 107 to 150 minutes. Cooling not only diminishes the number of cardiac pulsations, but produces in warm-blooded animals a pronounced lengthening of the systole. On rapid reduction of the temperature of the blood, the respirations are increased and shallow. It was also noted that, on rapid reduction of the blood temperature, the secretory activity of the kidneys suffered so that the secretion of urine was arrested in spite of the fact that under other circumstances infusion of large amounts of physiological salt-solution is followed by polyuria. Rapidly progressive cooling is necessary to prevent the occurrence of polyuria. The destruction of the immunity to the effects of certain pathogenic bacteria and poisons observed on intense reduction of the blood temperature, the author thinks, is due to injury to the function of internal organs, especially those of a glandular nature.

The Combination of Percussion and Auscultation in Physical Examination.—LINOSSIER (*Lyon médical*, XXVII, 1895, p. 544)

BENDERSKY (of Kiev) described at the Congress of Rome, in 1894, a method of examination to which he gave the name of *auscultatory percussion*.

It rested upon the fact that percussion with the finger upon the skin produces a vibration of the entire organ underneath, which, if the percussion is light, remains limited to this organ, and is not transmitted to the neighboring viscus.

The stethoscope renders this vibration very clearly perceptible. BENDERSKY uses one of the binaural form, placing it upon a point of the skin correspond-

ing as nearly as possible to the center of the organ to be examined, and percusses very gently at points corresponding to the radii of a circle of which the stethoscope is the center.

The impression of the light blows perceived by the ear diminishes in intensity as the percussing finger is carried farther and farther away from the stethoscope, ceasing when the limit of the organ is passed.

BONDET and SALLÈS propose a modification of this method. Instead of putting the stethoscope in the center and moving the percussing finger about over the region of the organ that is to be examined, they percuss continuously at a fixed point, preferably over the part of the organ that lies nearest to the surface, and move the stethoscope by degrees away from this point until the shock of percussion is no longer perceived.

They claim for this method several advantages, among them that the force of percussion does not have to be modified, as it does in the original method, to suit the variation in the amount of tissue lying between the organ and the surface percussed.

Quantitative Analysis of Uric Acid.—(*Nat. Drug.*, XXV, 1895, p. 274)

Add sodium carbonate in excess and filter to free from phosphates, then take a known quantity of the filtered urine and add to it, drop by drop, the following solution until it ceases to form a precipitate:

Copper Sulphate	1.484 gme.
Sodium-potassium Tartrate	40.000 gme.
Hyposulphite of Soda	20.000 gme.
Distilled Water.	q. s. ad 1000.000 gme.

One ctm. of this solution precipitates .001 gme. of uric acid.

On Lumbar Puncture.—H. QUINCKE (*Berl. klin. Wochenschr.*, 1895, XXXII, p. 889)

As the author showed several years ago, it is possible to introduce a needle into the cerebro-spinal sac in the living by passing it between the lumbar vertebræ. This procedure acts not only as an aid in diagnosis, but also is of value as a therapeutic measure. Since the connection between the sub-arachnoidal fluid of the spinal cord and that of the brain and ventricles is usually kept up, even in pathological conditions, the influence of lumbar puncture reaches as far as the skull cavity.

The cerebro-spinal canal differs from other serous cavities in that it normally contains fluid in larger than capillary quantities, so that we are able to obtain fluid in the perfectly healthy individual by puncture of the sac.

In pathological conditions either the character of the fluid is changed, or the quantity, and therefore the pressure is abnormal. Hence the lumbar puncture must be associated with a measure of pressure.

According to several observations the normal pressure in the lumbar region, the person lying horizontally on the side, is estimated at between 40 and 60 mm. of water. The author believes, however, that these figures may vary in different individuals and under different circumstances.

The normal cerebro-spinal fluid is clear, colorless, of a specific gravity of 1007, 0.2-0.5 per cent. albumin, always contains some sugar, and is practically free from cellular elements.

The author has punctured in 53 cases, principally such as are associated with increased pressure, namely in cases of cerebral tumors, hydrocephalus, and the various forms of meningitis (serous, sero-purulent, tubercular).

In the majority of these conditions the fluid is

clear as water; sometimes, however, it is turbid, or discolored by suspended leucocytes, endothelium, or red blood-cells. In acute inflammations the amount of albumin is increased to 1-3 per cent., while in chronic processes the amount is practically normal. Sugar is often wanting in inflammatory exudations. At times, but by no means always, various kinds of cocci are found in fluid, turbid from pus. The tubercle bacillus has been found in the fluid in tubercular meningitis.

Most of the cases examined showed symptoms of pressure on the cerebrum, with a consequent increase in the manometric pressure. At the present time the only conclusions justifiable from the measurements of pressure are these: A moderately increased pressure, accompanied with marked symptoms of compression, denotes an acute, while a marked increase in the pressure, with slight symptoms of compression, denotes a chronic, trouble.

The diagnostic value, then, of lumbar puncture is chiefly the fact that we are able to determine, in a certain measure, the kind and degree of the inflammatory process in the meninges and the nature of the micro-organism involved.

The local pain on introducing the needle is slight, so that narcosis is very seldom necessary. At times the patient complains of pain on grazing the periosteum and on piercing the dura mater. At no time during the author's experience was there any lasting damage done to the cauda equina.

In several cases there was noticed a diminution of certain brain symptoms coming on immediately after the puncture or even during the operation. Headache decreased or disappeared, the head became more movable, and the mental condition brighter. The pulse-rate was never directly affected by the puncture.

The therapeutic value of puncture is seen chiefly in acute cases of serous and of sero-purulent meningitis. Besides the instantaneous action of the lowered pressure, the puncture undoubtedly acts by bringing the compressed blood and lymph channels back to their normal condition and thus fitting them for the absorption of the remaining exudate. In chronic cases the withdrawal of a certain amount of fluid affords a certain amount of relief.

As regards the technique of the operation, the author uses canules 3.7 ctm. in length and 0.6 to 1.2 mm. in thickness, and they are to be used for no other purpose. These canules are fitted to a cone-shaped piece, over which is drawn the rubber tubing which connects it with the glass tube.

The patient lies on the left side, with the knees well drawn up and the back curved as much as possible; the lumbar region is disinfected in the ordinary manner. After the spinous processes of the lumbar vertebræ are designated, it is a wise plan to mark them a few inches to the left of the median line. In children the needle is introduced in the median line, while in adults it is inserted 5-10 mm. to the right, and is passed in such a direction as to pierce the dura mater in the median line. The site chosen for the puncture is the interspace between the second and third, or third and fourth, lumbar vertebræ, and the needle is passed in a direction slightly toward the head. As soon as the fluid appears the rubber tube with the glass tube attached is connected, and the pressure read off from a scale. The fluid is drawn off by lowering the glass tube. The operation is concluded when the flow is quite slow, or when the pressure has been reduced to 40 mm. or less. Naturally the puncture is ended sooner if any unpleasant subjective symptoms arise.

Since the pressure, reduced by the puncture, increases sooner or later, the author has sought to establish a continued flow by slitting the sac by means of a lancet 4 mm. in width.

The wound caused by the puncture, as well as that caused by the slitting operation, heals rapidly under an iodoform dressing.

NEUROLOGY AND PSYCHIATRY

Department Editor
PEARCE BAILEY, M.D.

Collaborators

ALBERT WARREN FERRIS, M.D., LEWIS A. CONNER, M.D.,
THOMAS PECK PROUT, M.D., and L. PIERCE CLARK, M.D.

An Octogenarian Epileptic.—FREDERICK T. SIMPSON (*Jour. of Ner. and Men. Dis.*, January, 1896)

The author reports a case of idiopathic epilepsy occurring after the age of 80 in a clergyman of good physique, who had engaged in the active duties of life until over eighty years of age. The patient's family history was, that his father died at 68 of neurasthenia, and a daughter was afflicted with epilepsy. There was no personal history of blow or fall or other traumatic or reflex cause of the seizures; therefore, the author thinks it was a genuine case of idiopathic epilepsy. He had 44 fits—24 by night and 20 by day; seven-eighths of the attacks occurred between 6 p.m. and 8 a.m. There was no aura. Patient improved considerably under bromide and chloral treatment (40 grn. of bromide and 10 of chloral), and had no attacks for five months prior to his death, which resulted from an accident.

Defective Development of the Cerebellum in a Puppy.—J. S. RISIEN RUSSELL (*Brain*, 1895, IV, p. 523)

The puppy was one of a litter all similarly affected, though the parents were healthy prize dogs.

Incoördination was far in excess of that of a normal puppy, and the animal always fell, sometimes in one direction, sometimes in another, when attempting to walk; when standing or sitting, its head and trunk oscillated almost constantly. After death by chloroform, the central nervous system was preserved in Müller's fluid. Sections were cut in celloidin, and stained by Schäfer's modification of Pal's method, picro-carmin, aniline, blue-black, hematoxylin, eosin, etc.

The cerebellum was about three-fourths of the normal size, and quite symmetrical, its contour, convolutions, and sulci appearing normal, except that the convolutions were narrow. The proportion of gray and white matter appeared unaltered in great part, though the folia looked shrunken. In other parts the cortex was shallower, in still other parts deeper than normal. In one part the molecular layer of the cortex was three times as deep as normal or as compared with the granular layer at this point; in another part the molecular layer was one-half or one-third the depth of the normal. In some parts the transition from shallow to deep molecular layer was abrupt. The granular layer showed similar variation in thickness. In large parts of the cerebellum the cells of Purkinje were absent, notably in the lateral lobes; in other parts one or two were seen, or a few irregular clusters, in some specimens invading the granular layer. In the middle lobe the arrangement of Purkinje's cells was more regular. The corpus dentatum on either side

was intact and apparently normal. The cerebellar peduncles were reduced in size, but showed no evidence of sclerosis or recent degeneration. No abnormality was found in the inferior olives, the restiform bodies, in the spinal cord, the red nucleus, the optic thalamus, the cerebral cortex, or in the auditory nerve and labyrinth.

In the entire absence of evidence of progressive disease RUSSELL concludes that the defects were congenital. He attributes the failure of the puppy to develop power of equilibration to the fact of the imperfect state of development of those structures by which compensation is ordinarily brought about, after lesions of the cerebellum. He calls attention to the fact that the defect which caused the diagnosis of cerebellar disease was limited to the cerebellar cortex, and to the fact that there was no discoverable defect in the inferior olives and the corpora dentata.

Epilepsy, with Luxation of the Jaw.—CHARLES E. STANLEY (*J. of Ner. and Ment. Dis.*, February, 1896)

MINNIE S., aged 27. Mother died of phthisis; father was an inebriate; one sister living and healthy. At the age of 14, during the first menstrual flow, she had her first fit, which was attended by partial dislocation of the jaw, causing great pain. Five years after, she had an attack of epileptic mania. For three months excitement took the place of convulsion, and she was confined in an asylum. After a few months her excitement subsided, and a severe fit occurred, at which time a complete dislocation of the jaw took place. During the initial tonic spasm of these severe convulsions the depressor muscles of the lower jaw act inordinately, and lift the articular processes from the glenoid fossæ, usually resulting in a bilateral and complete luxation. A reduction of the displacement is rendered easy by the absence of the molars, which have been extracted as they had been loosened by the severe action of the muscles of the lower jaw.

On the Flocculus.—BRUCE (*Brain*, 1895, LXX and LXXI)

The flocculus becomes differentiated as a lobule distinct from the rest of the cerebellum at a very early period of intra-uterine life.

The myelination of its peduncle begins at the sixth month, a time when the only other medullate fibers in the cerebellum are those belonging to the restiform body and the superior cerebellar peduncle.

In an earlier paper the writer has stated that the majority of the fibers of the flocculus pass inward and enter into connection with the external and internal nuclei of the auditory nerve and also with the nucleus of the sixth nerve.

Further investigations in the fetus at six and one-half months, have shown that all the fibers which are myelinated at this period pass inward along the floor of the ventricle toward the auditory nuclei, making an angle of about 50° with the raphe. Sections made in a different plane showed the peduncle of the flocculus sweeping around the accessory nucleus and the outer division of the restiform body and passing inward toward the auditory nuclei. Some fibers end in the external nucleus, while others pass under the ventricular floor, to break up in the internal auditory nucleus. A few fibers can be traced to the nucleus of the sixth nerve, but it is impossible to say if any pass to the opposite side. Possibly some fibers pass upward to the cells at the lateral angle of the medulla. It thus

appears that the flocculus is an important central connection of the nuclei of the vestibular root of the auditory nerve, the accessory nucleus of the cochlear root, and of the sixth nucleus.

OBSTETRICS; GYNECOLOGY; PEDIATRICS

Department Editor

THOMAS S. SOUTHWORTH, M.D.

Collaborators

GEORGE G. WARD, Jr., M.D., GEORGE R. WHITE, M.D., EDWARD N. LIELL, M.D., WILLIAM B. NOYES, M.D.

Treatment of Dystocia after Vaginal Fixation.—

WILHELM RÜHL, Eibach-Dillenburg (*Centralbl. f. Gyn.*, 1896, No. 6)

The author has performed the operation of vaginal fixation 235 times, and is well pleased with his results, especially in his recent cases, in which he has introduced some important modifications. Ten of his cases have become pregnant and given birth to children. The labor was normal in seven cases, and in the other three podalic version was performed with favorable results to both mother and child.

Two of the cases were especially difficult, and are reported in full. In both cases the cervix was drawn up above the promontory of the sacrum, while the head was pressed into the vagina by making a diverticulum in the anterior uterine wall. Upon trying to dilate the cervix it was found to be very rigid, almost as if it were an iron ring. Two fingers were passed into the cervix and an incision made through the anterior lip sufficiently long to admit delivery of the child. The incision was sutured immediately after the labor.

This rigidity of the cervix, which has already been described by STRASSMANN, is due to cicatricial tissue formed about the upper part of the cervix. This trouble may be avoided by performing the operation properly, and never suturing the fundus to the vagina. He promises soon to present a paper describing his method of operating.

An Operation for Incontinence of Urine in the Female.—D. TOD GILLIAM, Ohio (*Amer. Jour. of Obst.*, No. 2, 1896, p. 177)

A woman afflicted with this disorder becomes an object of loathing to herself and of disgust to those around her. The author has devised an operation for the relief of this class of patients, and has achieved success in several cases in which he has been able to apply it.

While examining a girl of 18 years who had suffered from incontinence from infancy, he noticed an anomalous band attached to the urethra and spreading itself over the muscles of the anterior aspect of the vulvo-vaginal junction.

On clipping this the incontinence was at once relieved.

Another case presented no abnormality until the parts were put upon the stretch under an anesthetic, when a similar band was disclosed which was attached to the sides and under surface of the urethra. A perfect result followed the excision of this band and the closure by sutures of the raw surfaces, the incision being carried up on either side of the meatus in a vertical direction, and an additional row of interrupted sutures placed at this point so as to bring the tissues together in a line at right angles to the line of incision.

G.'s view is that the incontinence is due to orificial excitation with resulting reflex action of the detrusive forces, and by destroying these bands the urethra is relieved from the influence of muscular spasm or engorgement of erectile tissues communicated through them. That these bands are capable of provoking and perpetuating a vast amount of local irritation is further evidenced by the vulvar hyperesthesia and vaginismus so frequently witnessed as the result of, and calling for the ablation of, the remains of the hymen.

The author does not maintain that a band exists in all cases, but he believes that a hyperesthesia exists in all, and that the indications are to isolate the terminal extremity of the urethra as much as possible by severing the connection of nerves and tissues. If no band is present it will only be necessary to make the vertical incision on either side of the meatus, and then separate the nerve fibers by converting the wound into a transverse one with interrupted sutures. The author advises fine silk for suture material. A bland ointment is indicated to protect the wound from the irritation of the urine while healing.

Two cuts illustrate the operation.

Migraine in Infants.—COLLIGNON (*Union méd. du Nord-Est*, and *Jour. de Méd. et Chir. prat.*, April 10, 1895)

Migraine can occur in infants four or five years old. The first attacks are almost always taken for a gastric disturbance. It may occur during perfect health; in the night after some hours of sleep, or in the morning on awakening, and is generally attended with vomiting. If the onset is at night, the food is vomited; if in the morning, only mucus. The vomiting may be frequently repeated, and of small amount, but may last from one to three days.

In the first day the tongue is not coated, but the breath has a foul odor. The headache is not very intense, and sometimes will hardly be mentioned. The pain is not the most important feature in migraine of infancy, but prostration is considerable, the pupils are contracted, and the face is pale. The temperature may be slightly elevated, and, as a rule, is higher than in migraine in older patients, with increased respiration, and sensibility to light and sound. The attack may begin suddenly with palpitation of the heart or epistaxis, and end as suddenly as it began, but other similar attacks follow, with increasing frequency, and it is this recurrence of the combination of symptoms mentioned that makes a diagnosis of migraine in infancy possible.

Diagnosis, Prognosis, and Treatment of Sarcoma of the Kidney in Children.—EMILY LEWIS (*Arch. of Pediatrics*, XIII, No. 2)

Over 38 per cent. of all reported cases of tumor of the kidney occur in children. There is a special liability to malignant growth there, on account of the peculiar embryological development of the kidney from the two distinct parts of the Wolffian duct, with a possibility of including other tissues within the capsule of the kidney, which may later become evident as congenital growths, and develop into distinct malignant tumors as early as the first week after birth. As a rule these growths are small, round celled sarcomas. Occasionally spindle cells, connective tissue, muscle, or cartilage are found. Some are carcinomatous.

Pain is rarely an important symptom. The tumor may grow slowly or rapidly. The average duration

before death in cases not operated upon is one year. Edema is an inconstant symptom. Ascites is present in less than one-half the cases. Urinary symptoms are generally absent, unless both kidneys are involved. The abdominal tumor, with gradual emaciation of the patient, is the only constant symptom, and should be tested under an anesthetic in all doubtful cases.

Left-sided tumors must be diagnosed from splenic tumors, with the assistance of blood examination in doubtful cases; also from ovarian growths, markedly enlarged mesenteric glands, or hydro-nephrosis.

The mortality, taken from the author's table of 60 cases, is 28½ per cent., which is 50 per cent. better than the statistics of ten years ago. The prognosis of ultimate cure is not good, for the growths are apt to recur after a few years. The operation should always be performed when possible.

A New Operation for a Stenosed Fallopian Tube.

—R. GERSUNY, Vienna (*Centralbl. f. Gyn.*, 1896, No. 2)

The author's patient was a woman 25 years old, married five years, and never pregnant. She was operated upon for a tubo-ovarian cyst about the size of a child's head. After removing the cyst the adnexa on the other side were examined. The ovary was normal, but the tube, which was apparently normal on the uterine end, widened out near the ovary and terminated in a blind sac about the size of a walnut. There was no trace of an old peritonitis.

The tube was drawn out, an incision made into the sac on the side nearest the ovary. The contents of the tube, which consisted of a dark sero-sanguinous fluid, was evacuated, and the sac was found to be lined with a smooth, thin mucous membrane. He had no small probe at hand and could not determine whether the tube was patent throughout. The ovary was then put through the incision into the interior of the sac and fastened in place by sutures.

The patient made a good recovery and left the hospital after three weeks. Menstruation was regular for three months, after which time she became pregnant. When last seen she was pregnant four and a half months, and was having no annoyance as a result of the operation.

Indications for and Administration of Antitoxin.

—A. CAMPBELL WHITE (*The Brooklyn Med. Jour.*, X, No. 2, p. 80)

In cases of diphtheria, where there is a very marked swelling of the tonsils, with very little membrane, and acute symptoms subsiding at the end of three days, we do not see the marked results from antitoxin that we do in the more malignant cases of diphtheria.

In the nasal cases, with marked glandular enlargement of the neck and a large amount of membrane coming down in the anterior and posterior nares, we get the best results from antitoxin, and the most marked effects.

In the reported laryngeal cases first treated by Aronson's serum, we saved about 75 per cent., and a much larger proportion of the operative cases than ever before. Formerly, after intubation or tracheotomy, from 70 to 80 per cent. of the cases would die, generally in from one to four days, from septic pneumonia or bronchitis. Fatal cases treated by the antitoxin live from ten to fifteen days, and show no membrane in the lungs after death.

In adults a very large injection of serum is necessary to produce any results. Under five years, injection should always be practiced, no matter how mild the case appears, for the mortality at this age, including the mildest forms, is 40 per cent. Injections should be made as early as possible after reliable bacteriological examinations have been made.

The author does not follow the local symptoms, the condition of the membrane, or the temperature in deciding the question of repeating the injection, but rather the general condition of the child.

The strengths of different preparations of antitoxin vary. Behring has three kinds: No. 1, simply for immunizing; No. 2, for mild cases; No. 3 for severe cases. Aronson's serum is equal in strength to Behring's No. 3. Of these (Behring's No. 3 and Aronson's) we may give a child under five with a fairly severe diphtheria 5 c.c., to be repeated if the child does not improve. For a grown child or adult, 20 c.c. are not too much.

The chest below the nipple is a very satisfactory place to make the injection.

Infantile Tetany Treated by Thyroid Extract.—

JOHN THOMSON, of Edinburgh (*Archives of Pediatrics*, 1896, XIII, No. 3)

A markedly rachitic baby 15 months old was treated by the author for tetany by thyroid extract, actuated by the belief that a frequent symptom after thyroidectomy in man and animals is tetany and allied convulsive conditions. The results were not favorable, and antirachitic treatment was substituted, which was not followed by a cure. BRAMWELL, GOTTSTEIN, and others have attained satisfactory results in the thyroid treatment of tetany, a disease which is quite common in Edinburgh. Antirachitic treatment is, however, generally followed by a complete and much more rapid recovery.

The reason of the series of unusually successful results in thyroid medication in the hands of the above authors not stated in this article is that in Edinburgh sporadic cretinism and myxedema are so common as to be almost endemic. Probably some or all of their cases of tetany occurred in children who were, to some extent, affected by the cretinic degeneration.

The writer believes that thyroid extract should be used with extreme caution, especially in cases which have any tendency to laryngismus. He thinks that the results in tetany are not entirely satisfactory.

Arthritis Deformans in a Child.—HENRY KOPLIK (*Archives of Pediatrics*, 1896, XIII, No. 3)

Arthritis affecting many joints, at the same time causing marked deformity and disability, occurs in childhood sometimes after the exanthemata, as a form of septic osteomyelitis in hereditary syphilis and in tuberculosis. After acute articular rheumatism, stiffness of the joints sometimes is left, but a genuine arthritis deformans is rare. Eighteen cases have been reported in all literature.

CHARCOT regards the condition as of neurotic origin. GARROD classifies the cases as rheumatic. OSLER has seen four cases; HENOCH, five. The characteristic symptoms are the enlargement of the end of the bones, the effusion into the joints, the deformities in flexed or extended positions of the limbs, the comparatively rapid invasion of many joints (within a few months), and the chronic character of the disease.

The case reported by the author is a child six and one-half years old. Family history negative. For the last year the child has had rheumatoid pains in various joints. At present nearly all these joints are thickened, some fluctuating, some having greatly diminished range of motion. The epiphyseal ends of many of the bones are thickened. During the year she contracted a vulvo-vaginitis. Salicylic acid has relieved the pain, but not the deformities.

Bacteria in the Cervix.—GOEBEL, Barmen (*Centrbl. f. Gynäkol.*, No. 4, 1896, p. 84)

The different results obtained by examining the cervix of pregnant women for the presence of bacteria led the author to carry out some further investigations on the subject at the Frauenklinik in Bonn. Among 30 pregnant women examined with the utmost care, bacteria were found in the cervix in only one case, and in this it is possible there was an error in technique, by which the culture medium became contaminated from an outside source.

These results are contrary to those of WINTER, but agree with those of MENGE, STROGANOFF, and WALTHARD.

The Mental Disturbances of the Climacteric Period—GEO. H. ROHÉ (*Maryland Med. Jour.*, 1896, 15, p. 258)

Several exceedingly interesting cases are cited appertaining to the characteristic as also unusual phenomena of the menopause.

In addition to the usual cyclical phenomena are mentioned melancholia, aggravated attacks of hysteria, delusions, and hallucinations referable to religion and to the sexual sphere, the apprehension of impending death, and suicidal tendencies.

The depression and mental anxiety also lead to the use of alcoholic stimulants to excess in some cases.

The author suggests that while there is no specific form of mental disorder that can be properly termed "climacteric insanity," there can be no doubt that the menopause must be considered as one of the exciting causes of mental disease.

As statistics show that insanity in women is especially frequent between the ages of 40 and 50 years, the conclusion seems reasonable that some relation exists between the menopause and insanity, although it must not be assumed that mental disturbances at this period are necessary consequences of changes in the functional activity of the sexual organs.

The prognosis of the insanities of the menopause is rather favorable, and death is rare as an immediate consequence of the psychical derangement. The author has elsewhere expressed the opinion that a considerable proportion of cases of insanity following extirpation of the ovaries are simply cases of climacteric insanity.

As to the treatment of the mental disturbances of the menopause, the patience, as well as the therapeutic resources of the practitioner, is often severely tested. Attention should be given also to the symptoms characteristic of the menopause.

Tuberculosis in Massachusetts.—An officer of the Massachusetts Board of Health says that the statistics of that State show the death-rate from tuberculosis to be higher than in any other part of the world, Austria and Bavaria excepted.

SOCIETY MEETINGS

NEW YORK COUNTY MEDICAL SOCIETY

Stated Meeting, March 23, 1896

EDWARD D. FISHER, M.D., President

Club-foot and Its Treatment.—Dr. A. M. PHELPS read a paper on this subject. He said that there were two great varieties of club-foot—the congenital and the non-congenital—and that all the forms occurring after the birth of the child were paralytic, traumatic, or due to contractions of one kind or another. As a result of paralysis of one group of muscles, and contraction of the antagonizing muscles, deformities are produced. Referring to the etiology, the speaker said that while there was much diversity of opinion regarding the causation of club-foot it was generally admitted that heredity played an important part. He could not see how any one at the present day could believe in the theory of maternal impressions. More tenable was that which attributed many of these deformities to intra-uterine pressure in cases in which the amniotic fluid was scanty. Many writers on orthopedic surgery, among others, he believed, Dr. SAYRE, taught that the cases of talipes varo-equinus were due to the contraction of the soft parts, and dislocation of one bone upon the other. Dr. PHELPS then exhibited a series of specimens of club-foot, showing that the chief changes observed were a twisting inward of the neck of the astragalus and contraction of the anterior division of the deltoid ligament, together with other soft parts. In his opinion, it was the contraction of the soft parts that produced the deformity, by changing the articular facets in the normal bone.

Regarding treatment, he said that in the congenital cases it should be begun as soon as the child was born; and, in the paralytic varieties, as soon as contractions began, braces should be applied to prevent deformity. If manipulations and fixation failed to reduce the deformity by the time the child was three months old, then he would resort to operative measures. If subcutaneous tenotomy failed, he would divide the skin and the tendons one after another, and also the anterior division of the deltoid ligament. In all but a very few cases such treatment would suffice. Much had been said both for and against his operation of "open incision" and also osteotomy, but each of these operations had its place. The place for open incision was between subcutaneous tenotomy and osteotomy.

Dr. PHELPS presented a number of patients and also some photographs illustrating the results of his treatment in these cases. He omitted reading the statistical part of his paper, for lack of time.

The Place of Forcible Reposition in the Treatment of Club-foot.—Dr. REGINALD H. SAYRE, in a paper with the above title, said that he thought that this part of the subject of club-foot had not received the attention it deserved. In some cases in which he had operated by the open method, the feet had not come into very good position, yet on the removal of the dressings a few weeks later he had found that the position could be readily improved. This had led him to adopt the plan of not entirely reducing the deformity at one sitting. There were often two facets and a wedge-shaped head to the astragalus in these cases of club-foot. He felt sure that by partial manual reduction of the deformity and holding the foot in the improved position by plaster-of-paris, and from time to time improving this posi-

tion, very bad deformities could be reduced without resort to severe bone operations. Dr. PHELPS had spoken about the great resistance offered by the ligaments of the foot, and this should be remembered when endeavoring to reduce the deformity. The method of WOLFF, of Berlin, was a good example of what could be obtained by gradual reduction, cutting out portions of the plaster-of-paris dressing and wedging in wood. In connection with the subject of forcible reposition, the speaker called attention to the instrument of Dr. BRADFORD, of Boston, which was particularly useful on account of the manner in which the foot was grasped over the cuboid, and wrenched into position.

Dr. W. R. TOWNSEND said that the most frequent cause of failure in the treatment of club-foot was the impatience and lack of attention of the surgeon. The method outlined by Dr. PHELPS seemed to him the best—i.e., to resort to operation when it was evident that mechanical treatment was no longer beneficial. Whether this time should be three months or much longer, must depend upon the individual surgeon. It seemed to him that the secret of Dr. PHELPS's success was not so much his operation, as his application of an enormous force in the reduction of the deformity. As a rule, the greater the surgeon's experience, the less he resorted to operation. On general principles, the foot restored to a normal position without operation was better than one which had been restored by operation and after extensive division of muscles and tendons.

Dr. PHELPS, in closing the discussion, exhibited his osteoclast. He said that in the 161 operations that he had reported upon at the Tenth International Congress in Berlin, in 1891, he had performed osteotomy 17 times, with 10 relapses, and no deaths. The mortality from osteotomies usually ranged from 1½ to 5 or 6 per cent., depending upon the operator. In his last series of 181 cases he had only performed osteotomy twice. He had done one amputation, and had presented a case in which he would do an osteotomy. There had been no death in the whole series. In a series of 435 osteotomies, presented by Dr. WILSON to the American Orthopedic Association in St. Louis, there was a mortality of 1.6 per cent., and 13.81 per cent. of relapses, or the equivalent of a relapse. For these reasons he believed firmly in reserving the bone operations always until operative measures on the soft parts were no longer effective. He did not know of a single death having followed these operations on the soft parts. We should pass from forcible manipulation to subcutaneous tenotomy, then to open incision, linear osteotomy, V-shaped resection of the tarsus, removal of the cuboid and scaphoid, and lastly to amputation. Out of 343 cases upon which he had operated, he had amputated three times. If these steps were followed, it would not be necessary to load down children with braces and deprive them of the pleasures of the playground for years.

The Modern Treatment of Chronic Cardiac Diseases.—Dr. WILLIAM H. MCENROE said that some persons had inherently weak hearts, which explained why in one person a valvular lesion would run a rapidly fatal course, whereas in others it would remain nearly stationary, and be completely compensated for by hypertrophy. The strength of the heart was shown by its ability to resist rapid action under conditions of excitement or emotion. Palpitation is found when the muscular power of the heart is insufficient; also in lithemia and in chronic Bright's disease. A strong, incompressible radial pulse indicates enlargement of the heart, with high arterial tension. Atheroma, when present, gave the pulse a

fictitious strength. An irregular pulse is of far more serious significance than an intermittent pulse. If, however, intermittence occurred after considerable exertion, it was more serious. Tachycardia, or "heart hurry," was a grave symptom in advanced life, but was physiological in infancy. The excessive use of alcohol was a common cause of this condition. Bradycardia, or slow action of the heart, was sometimes found in perfect health, but was most frequently present in dilatation of the heart. An injury to the cervical portion of the spinal cord was the most common cause of this condition. The pulse might be as low as 40, or even 20, per minute. Hemisystole had been considered a cause of excessive slowness of the pulse, only every second or third beat being sufficient to reach the artery and make itself perceptible. Orthopnea was a symptom belonging to the late stages of heart disease, and probably was due to disturbed circulation in the medulla. Anything which would diminish the supply of blood to the heart would produce attacks of angina pectoris, and hence atheroma was a common cause of this condition.

In the treatment of cardiac disease two principal curative agents were oxygen and iron. The contraction produced by digitalis was due to the prolongation of the systole and the shortening of the diastole. While under its influence the heart remains small, but the obstruction produced by it in the arterioles neutralizes the good effect of digitalis on the heart. To neutralize this obstruction, nitroglycerine should be administered, but at first the dose should not exceed $\frac{1}{100}$ of a grain. Nitroglycerine was of great value in treating interstitial nephritis associated with a hard pulse. There is no danger in using amyl nitrite freely if the blood-vessels were not diseased. He had known 60 minims to be taken at one time by inhalation, with benefit only. It was not generally known that iodide of potassium in doses of 5 grn., three times a day, largely diluted with milk, was an excellent vascular stimulant, although at first rather slow in its action.

Strychnine was one of the best stimulants for a weak heart. To get the best effects from cardiac stimulants, they should be combined. Active purgation was always indicated in heart disease. For the insomnia of advanced heart disease, morphine was the best remedy, and might be given in doses of one-fourth of a grain with 20 grn. of bromide of sodium. In most cases, codeine could be substituted, in doses of one-fourth to half a grain. Trional was an excellent hypnotic in doses of 10 grn., with morphine sulphate one-fourth of a grain.

Dr. WILLIAM H. THOMSON said that he did not think so much progress had been made in any important disease in the past generation as in heart disease. He would divide cardiac diseases into (1) primary and (2) secondary, because the treatment of the former was almost the exact opposite of the latter. Primary heart disease occurred almost entirely from endocarditis or pericarditis, due to rheumatism in early life. Under the head of rheumatic endocarditis we must now include that very large class occurring in connection with chorea. Choreic patients would usually recover at first without damage to the heart, but one or two years later they would be found to have a damaged heart-action. This showed that the lesions were slowly progressive. Why should the endocardium, the speaker asked, be so subject to fibrinous deposit, while the joints might be very violently inflamed without any such permanent lesion? It was because of the incessant movement of the affected parts. The first lesion consisted of a row of minute granulations

along the edges of the valves. This was soon followed by a deposit of fibrin, which subsequently became organized. But this fibrinous deposit then became a source of constant irritation, just as the conjunctiva was irritated by granulations on the eyelids. It was because of this irritation that heart disease was progressive. In the treatment of primary heart disease, the first, last, and only indication for treatment was to secure rest. For this reason, he knew of nothing equal to the persistent, continuous, and intelligent use of aconite for such cases. If cases of valvular insufficiency were treated by aconite and rest, one would be surprised how great would be the improvement. The same applied to cases of mitral stenosis. Pericarditis by itself he considered to be the most trivial of the heart diseases, but, when the surrounding structures had been also involved in the inflammation, the results were most serious. This was often observed in cases of pleurisy and pericarditis. Here, there was a tendency to produce dilatation of the heart at each inspiration. This was more noticeable in children than in adults on account of the flexibility of the chest-wall. Dyspnea was therefore very prominent in these cases, and it could be very markedly relieved by strapping the chest, and so restricting its motion.

In secondary heart disease there would be hypertrophy and dilatation of the heart from endarteritis. Whenever the enlargement of the right side of the heart was found in young persons, as a result of mitral disease, it would be noticed that the enlargement occurred upward and not laterally, the dullness extending up the sternum to the left, up to the second or even the first left interspace. The secondary heart diseases were really dependent upon the embarrassment of the pulmonary or the general systemic circulation. As all hypertrophied muscle was prone to undergo degeneration, the physician should be on the watch for the onset of this degeneration, for with this would come the first sign of trouble—dilatation. When this occurred the pulse would be found more frequent. Here, instead of using aconite and rest in bed, we should prescribe systematic and gradually increasing exercise. The frequency of the heart action was due to the inability of the heart to completely empty itself; hence, the condition of the valves under these circumstances was a secondary matter; it was the heart muscle that was important.

Dr. WILLIAM H. DRAPER said that he thought the value of rest in bed in that form of heart disease known as chronic endocarditis had not been sufficiently emphasized by teachers and writers. After a considerable experience he had learned to depreciate more and more the value of cardiac drugs, and to appreciate the more the value of rest. Ordinarily, rest was prescribed in a perfunctory way. Rest meant a great reduction in the number of heart-beats per minute, a restoration of the equilibrium of the circulation, and an avoidance of many circumstances tending to excite the heart action. In his judgment, next in value to rest came the dietetic treatment. Many reflex disturbances of the heart were due to indigestion, and hence a diet which would avoid fermentation would relieve the heart of much embarrassment.

As to the use of drugs in cardiac disease, the speaker said they could not be intelligently employed without a proper appreciation of the dynamics of the circulation. As long as compensation was complete, there was little or no need for drugs. In his experience, none of the cardiac stimulants was so generally useful as digitalis. It was mainly useful in the affections of the mitral valve, especially where the

heart action was rapid and weak. In diseases of the aortic valves, and especially in aortic insufficiency, it did not seem to him to be so valuable, except when aortic regurgitation was complicated by mitral regurgitation, as in the later stages it nearly always was. In the earlier stages of aortic regurgitation he considered it dangerous to slow the action of the heart too much, for by doing so the diastole would be lengthened and the danger of syncope thereby increased.

NEW YORK ACADEMY OF MEDICINE SECTION ON PEDIATRICS

March 12, 1896

WALTER LESTER CARR, M.D., Chairman

Retro-pharyngeal Abscess of Infancy and Childhood.—Dr. HENRY KOPLIK: This paper is founded upon an experience with 76 cases. Retro-pharyngeal abscess takes upon itself various phases, so that one needs an extensive experience to speak clearly and positively on this subject. In children and infants the retro-pharyngeal space is not as long as in the adult, giving rise to symptoms of pressure on the larynx sooner than in adults under similar conditions. The retro-pharyngeal space is the seat of several lymph-nodes. If all of these lymph-nodes are affected, there will be swelling in the mouth, and sometimes also beneath the angle of the jaw in front of the sterno-mastoid muscle, or behind its posterior border.

Retro-pharyngeal abscesses may be divided into: (1) Acute retro-pharyngeal abscess, which points wholly internally; (2) abscess pointing only externally; (3) abscess forming chiefly as an external tumor; (4) chronic tubercular retro-pharyngeal abscess; and (5) the burrowing septic abscess, such as is seen in scarlatina, and which burrows into the tissues of the neck. Such a thing as an acute idiopathic retro-pharyngeal abscess, we know now to be an impossibility. An infection of the tonsils, the soft palate, gums, or lymph-glands of the neck will cause a sympathetic involvement of the lymph-nodes behind the pharynx. The various forms of stomatitis, the affections of the tonsils and nasal cavities, must be considered as causative factors. Many of these retro-pharyngeal abscesses are complicated by empyema or pneumonia, due to a direct extension of the infecting agent.

The pus contained in these retro-pharyngeal abscesses is usually yellowish and creamy. I have succeeded in isolating four distinct species of streptococci in the pus. Animals injected with these streptococci do not die of sepsis, showing that these streptococci are of benign character, and are not due to septic processes. The pus was injected into animals in the crude state in order to see if there might not be organisms which had escaped staining. None of the animals died of tuberculosis—in other words, the acute retro-pharyngeal abscess is acute in its origin and benign in its nature.

A study of my 76 cases shows that the acute retro-pharyngeal abscess is pre-eminently a disease of infancy. Out of this number there was only one patient who was as old as nine years. It is most frequent from the sixth to the twelfth month, and after the second year of life it is quite uncommon. It is most frequent during the period of suckling. I have followed a number of these cases from a simple angina to the full development of the acute abscess. The physical signs of acute retro-pharyngeal abscess are the only certain means of diagnosis, although, of course, the voice and cry undergo a

remarkable change. Sometimes the head of the patient is thrown back, the infant refuses to nurse, breathes with difficulty, and awakens at times with a start. The symptoms may be easily mistaken for acute laryngeal disease, or acute paralysis of the fauces. If the fauces are inspected while the head of the infant is thrown back, there is a distinct prominence observed to one or the other side, due to the vertebra. The only accurate method of investigation is by digital exploration. Such a procedure in a young infant is not free from danger. I have known it to be followed, if done roughly, by great prostration. There may be simply an enlargement of the retro-pharyngeal lymph-nodes, without suppuration. Sometimes the abscess is low down, opposite the larynx, and hence is not visible in the fauces. It is unfortunate to have the abscess rupture during the examination with the finger, for it is quite likely under such circumstances that the pus will flow down into the larynx.

When these cases of retro-pharyngeal abscess are left to nature, the abscess bursts and results in spontaneous cure—at least that has been my experience in a few cases in which it has been impossible to obtain the consent of the parents to operate. I think some writers have exaggerated the danger of leaving these cases to nature. It has been claimed that death is liable to follow from the bursting of the abscess during sleep, resulting in suffocation. These abscesses open and discharge very gradually through a minute opening. I do not favor this let-alone treatment, but I wish to emphasize the fact that the danger of not incising these abscesses has been overdrawn.

In certain cases of retro-pharyngeal abscess, asphyxia early supervenes, and death seems imminent. In my cases there was one case in which the infant was operated upon by a physician in private practice and brought to my clinic in an almost moribund condition by the physician. Moist râles could be heard all over the chest, and it is probable in this case that the pus was aspirated into the bronchi. In one of my cases, basilar meningitis occurred as a complication; in another, there was Schluckpneumonie. The peculiar condition of prostration following the opening of the abscess in some cases has been thought to be due to pressure on the nerves, producing reflex syncope.

There is the greatest diversity of opinion, even among those of large experience, regarding the best method of treatment. External incision has been advocated because by the internal incision it is difficult to keep the parts clean and the wound open. There are distinct sets of cases in which the internal incision is entirely sufficient; in others, the external incision is better. In the vast majority of my cases, those in which the abscess pointed in the middle line of the fauces, the internal incision was effective, and gave immediate relief. A free longitudinal incision, subsequently enlarged by a forceps guarded by the finger, rarely closes up. It is not often that it becomes necessary to repeat the incision. Over seventy per cent. of these cases occur in suckling infants who have few, if any teeth, and the demands for antisepsis are not as imperative as in adults. For this reason I think the internal incision will be found ordinarily sufficient. The infant should be undressed and held firmly by an assistant in a good light. With a bistoury, the blade of which has been protected to within a half-inch of the tip, an incision is made longitudinally from above downward, inclining, if at all, toward the median line. When the incision is made, the assistant holds the infant face downward, so that the pus may escape from the mouth. This

is facilitated by external pressure on the side of the neck. The opening is then dilated, as already described. It is unfortunate to incise a case in which suppuration has not occurred. After the incision has been made, the external pressure is all that is necessary to cause evacuation of the pus. In another class of cases the deep cervical glands at the side of the neck are also involved. On inspection of the mouth, the abscess appears at the side of the neck. The external swelling is quite extensive, but well covered by muscles and the soft parts. In such cases the abscess is better approached from without, by carefully incising or dissecting from without inward. It is exceptional, however, to need a general anesthetic for such cases. The burrowing septic abscesses should of course be treated by external incision.

Dr. WILLY MEYER: Eight years ago I performed the first external incision in this city for cases of this kind. I should divide the cases of retro-pharyngeal abscess into: (1) acute idiopathic, (2) tuberculous, and (3) the septic abscesses due to swallowing foreign bodies, etc., and to the infection following acute diseases, including erysipelas of the nose and naso-pharynx. If we could be sure that nature was competent to take care of all these abscesses, then there would be no occasion for making an incision; but of this we cannot be certain. In the light of present surgical knowledge it is not good surgery to incise the abscess internally. It is difficult to keep the incision open, to keep the wound aseptic, and prevent aspiration of pus. For these reasons the internal incision should never be used except in children under one year old; in others a general anesthetic should be given, and the case treated by external incision. I think that the external incision is as much in the reach of every physician as is the internal incision. The first case I operated upon was a man of 40 years, who could not swallow, and who was suffering from an abscess situated quite low down. I made an external incision along the inner side of the sterno-mastoid muscle, and rapidly dissected down to the carotid artery. It is safe on the inner side of this artery to make a small incision, and we are guided easily by palpation. My second case was a boy of five years, in whom the abscess could not be seen, but could be felt by the finger. The abscess was of tubercular origin. I made the same incision, and then, with my finger in the throat, I was able to guide dressing forceps into the abscess cavity. According to the history, this abscess had apparently developed very quickly, notwithstanding that it was tuberculous. The third case was also a tuberculous child, and the fourth a baby of 13 months, with an idiopathic abscess. It has been advised by some to make the incision posterior to the sterno-mastoid muscle, but I have not tried this, because it has seemed to me so easy to reach the common carotid artery in the way I have described. I see no reason why retro-pharyngeal abscess should not be treated on the same principles which govern us in operating antiseptically on other abscesses.

Dr. C. G. COAKLEY: I have thought for some time that the infection is, as the author of the paper has stated, from the tonsil. The lymph-nodes, to which attention has been directed, are exceedingly small—not as large as those in the deep cervical chain of glands—and it hardly seems to me probable that suppuration in them would give rise to the very large abscess formations found in some of these retro-pharyngeal abscesses. In children it has seemed to me that these abscesses have simulated the peritonsillar abscesses seen in adults. I have made

some experiments on the cadaver with reference to the course which fluid would take. If we inject into the anterior pillar of the fauces, that place in which we find the swelling in the adult peritonsillar abscess, no collection of fluid is formed behind the pharynx, but on injecting into the posterior pillar the fluid passes directly into the loose connective tissue lying between the pharynx and the vertebral column. When we remember that these retro-pharyngeal abscesses occur in infancy, when the child is, for the most part, in the recumbent position, it is easy to understand that an abscess forming around, or, in the tonsil may be readily forced back behind the pharynx. I think we can account for some of these cases in this way. I have never seen a simple tonsillitis pass on to the development of retro-pharyngeal abscess. I think that in most instances these abscesses are best opened within the mouth. For this purpose I prefer the ordinary gum-lancet, passing it in along my finger, while the child is inverted. I have never noticed any pocketing in the cases I have seen.

Dr. EMIL MAYER: I think one of the most able papers presented on this subject was that written by Dr. J. O. ROE, of Rochester. At the time of its presentation, many laryngologists expressed the opinion that these cases were quite rare, and this accords with my own experience, for in fifteen years of work in a large throat clinic there have been only six or seven cases. It is probable that more of these cases go to the children's clinics than to throat clinics. I think it has been demonstrated that at the second and third cervical vertebræ there are, in early life, very large glands, and that suppuration of these glands results in the formation of large abscesses. In my experience torticollis has been a very important symptom. In none of my cases, although they had been seen by other physicians, had a correct diagnosis been made previously. I saw one case in which I intended to incise the abscess; the very moment that the tongue-depressor was laid upon the tongue, the child gave a gasp, and died instantly. The abscess was still intact. I certainly agree with Dr. WILLY MEYER as to the advisability of limiting the external incision to patients over a year old. A very good suggestion as to the treatment has been the use of a concealed knife which could be protruded by the mere touch of a spring when the instrument is in contact with the abscess.

Dr. J. LEWIS SMITH: I think it is better to use the term "peri-pharyngeal" rather than retro-pharyngeal, because the abscess is, in very many cases, situated on the side of the neck. I think the nomenclature can be simplified by recognizing two classes, viz.: (1) those due to disease of the bone; and (2) those in which there is no such bone disease. In all cases in which the abscess originated from disease of the vertebræ, the incision should be made externally. In all the other cases, a good result is usually obtained from the internal incision. I think the diagnosis is comparatively easy if made with the finger, even in those cases in which nothing is visible on mere inspection. According to my experience, these abscesses occur usually in that class of children formerly designated as "strumous." Difficulty of breathing is often an early symptom, and resembles croup, but careful observation will disclose the fact that the obstruction is higher up than in croup. I cannot indorse the practice of waiting for nature to cure these cases. I can recall two cases in which the suppuration extended into the chest, producing empyema, and I know of an instance in which this waiting policy resulted fatally. Regarding the relation of syphilis to peri-pharyngeal

abscess, I would say that quite recently I saw a child of one year, with bad teeth, characteristic specific sores on the abdomen, and with the symptoms and signs of such an abscess. The abscess was incised internally.

Dr. W. L. STOWELL: I would like to emphasize the importance of examining the throat where torticollis is present. Some of these cases appear to be very suddenly cured, owing to rupture of a peritonsillar abscess. I have never found it necessary to open these abscesses externally.

The Chairman, Dr. WALTER LESTER CARR: The reader of the paper has presented a very excellent bacteriological classification. For children only a few months old, it seems to me that the internal incision is entirely sufficient. I recall a case in which a physician had been watching a child for two weeks for what he supposed to be croup, yet it was really a case of retro-pharyngeal abscess.

CORRESPONDENCE

(From the BULLETIN's Special Correspondents)

CANADA LETTER

LONDON, Canada.

Experiments with the Röntgen rays are being continued with unabated interest at the University of Toronto. Fortunately the University was well supplied with Crookes tubes when the discovery was first announced, and consequently has not been hampered by lack of tubes, as so many other scientific institutions have been, owing to the exhaustion of the supply. Recently Messrs. WRIGHT and KEELE, of the School of Practical Science, and Mr. McLENNAN, of the University, have succeeded in making the greatest advance yet announced. They have reduced the time of exposure from minutes to seconds—a perfect picture having been obtained in three seconds. Further announcements from this institution are expected at an early date.

* * *

Mr. HAYCOCK, the irrepressible leader of the Patrons in the Ontario Legislature, has been to the fore once more with a medical bill. This time he proposed to amend the Medical Act by cutting in half the fees charged students by the Ontario Medical Council. Dr. MCKAY, M.P.P., defended the Medical Act, pointing out that the proposed amendment had not been asked for by a single resolution of medical students, in whose behalf it was supposed to be introduced. After a brief rejoinder by Mr. HAYCOCK the Hon. G. W. ROSS, Minister of Education, spoke in opposition to the bill. He charged that the proposed amendment was a covert attack upon the Medical Council, an educational organization which for the past twenty years had done splendid public service in keeping the province clear of quacks, in promoting higher medical education, and in producing a class of medical men second in efficiency to those of no other country in the world. Mr. HAYCOCK would not consent to withdraw the bill, and accordingly it went to a vote and was declared lost on a division, Liberals and Conservatives alike voting against it. This is the fourth time that the Patrons, since their organization, have attacked the profession, and as often have they been repulsed.

* * *

There is another medical bill before the Legislature now in session—this one, however, is promoted by the profession itself. It defines the terms of admission to registration of persons holding British

diplomas, and provides that any person holding a medical or surgical degree, or diploma entitling such person to register in Great Britain, shall be entitled to register in this province only upon passing the final examination of the Ontario Medical Council. Heretofore, the Council had the option of admitting to registration British practitioners upon such terms as the Council might deem expedient. The bill will, in all probability, become law.

* * *

Pressure of work has compelled Dr. SHEARD, Medical Health Officer of Toronto, to retire from the staff of the *Canada Lancet*. Dr. G. P. SYLVESTER has purchased his interest in that journal, and will now be its business manager. The *Lancet* has been enlarged, and improved in style and appearance.

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The *Canada Medical Record*, of Montreal, has changed hands and gone under a new management. It is now owned and edited by the Faculty of Medicine of the University of Bishop's College.

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Dr. G. GIBB WISHART, of Toronto, has recovered from a severe attack of typhoid fever.

Drs. ECCLES, of London, and HOLMES, of Chatham, are off to JOHNS HOPKINS', Baltimore, for a few weeks.

Another good man has been lost to the profession in Ontario in the death of Dr. J. H. SAUNDERS, of Kingston, who died on the 19th ult. of septic pneumonia, the sequel of a septic sore throat. He is the second professor that the medical department of Queen's University has lost by death this session, the other being the late Dr. FENWICK. The two were intimate friends, and both died of septic infection within a few weeks of each other. Dr. SAUNDERS was 49 years of age. In the "eighties" he was appointed to the chair of medical jurisprudence at Queen's, a position which he retained till last year, when he accepted the appointment of professor of clinical medicine. He was also examiner in the College of Physicians and Surgeons, and an active member of the Ontario and Canada medical associations. He was a hard worker, dignified, but unostentatious in manner, kind and sympathetic in disposition.

Dr. HERALD has been appointed to succeed him in the chair of clinical medicine.

PHILADELPHIA LETTER

A stated meeting of the Philadelphia County Medical Society was held March 25, 1896. Dr. J. C. WILSON was in the chair.

Dr. H. M. CRYER, by invitation, presented "Studies of the Maxillary Bones," with lantern illustrations. He showed sections, at different points, of the sinuses, canals, and foramina. He had sections showing the antrum of Highmore with its relation to the alveolar process in cases where there were teeth, and where the teeth were gone and the bone was atrophied. The cuts showing the inferior dental canal or tube, as he preferred to call it, since it could be removed from the cancellated bone, gave varied relations in different specimens, and showed that the branch going to the mental foramen was given off between it and the symphysis and passed backward and upward to the foramen, differing from the description given in many of the textbooks. There were sections showing imbedded teeth and ossification of the cancellated structure where there had been any inflammatory condition existing for

any length of time. He was voted thanks by the society for his original and instructive work.

Dr. G. H. MAHNEN reported "An Unusual Alveolar Abscess with Antral Complications." The case came to him with pus discharging from the side of the tooth, and he called in consultation a dentist, who drilled a hole through the tooth, and in probing passed a small probe into the antrum of Highmore; following this there was an inflammation extending to the nose. The tooth was then extracted and a small abscess sac was found in the covering membrane of the tooth. The trouble subsided at once.

Dr. J. B. ROBERTS reported "Cases of Artificial Anus and Fecal Fistulæ Successfully Treated by Intraperitoneal Operation." He reported three cases where attempts had been made to close the artificial anus from the outside, but were not successful. He opened the abdomen, freed the adhesions around the old wound, and closed the opening, or resected the gut, using the Lembert suture. In all of the cases convalescence was uninterrupted.

Dr. HOLMES said he thought the operation should be done early, as the lower bowel would contract, adhesions would be less, and it would be more comfortable to the patient to be free from the fistula. He thought the Murphy button would save time in the operation, but that it should not be used where there had been many adhesions. He saw an end-to-end union made by Dr. ROBERTS, and it was very skillfully done.

Dr. M. PRICE thought that the use of the Murphy button would lessen the number of cases with artificial anus, and that where this existed all the thickened and diseased gut should be removed and an end-to-end anastomosis should be made with the Murphy button, after first breaking up all the intestinal adhesions. After the button was placed he united the ends of the gut around it with continuous suture and closed the V in the mesentery.

Dr. E. E. MONTGOMERY fully indorsed Dr. ROBERTS in all, except breaking up the intestinal adhesions, which he thought should be done in all cases. He spoke of a case he had operated upon and where he had broken up a great many adhesions before closing the abdomen. He injected boro-glyceride, which was removed through the drainage-tube, and this was repeated for four or five days. He operated on this patient again some time later for ommental hernia and found only one small adhesion.

Dr. ROBERTS, in closing, said he had never used the Murphy button and would not in a case with many adhesions. He had always had time to do a circular-enterostomy.

Dr. H. F. HANSELL presented "The Report of a Case of Sudden Blindness from Nasal Disease." There was a purulent inflammation of the ethmoid and sphenoid sinuses, which he thought might have extended to the meninges, and the thickening of the periosteum caused pressure on the optic chiasma. The nasal condition was treated and cured, with no effect on the eyesight. The case was examined by different surgeons, but they found no indications for surgical interference. There is now acute atrophy of the optic nerve, with slight vision on the temporal sides of the eyes, none at all in the center and nasal sides.

* * *

A stated meeting of the Pathological Society was held March 26, with Dr. C. W. BURR in the chair.

Dr. J. DALAND showed a new post-mortem case especially adapted for use in private houses. The case was inclosed in an ordinary schoolbag, and in

this was a rubber bag which was used to remove any specimens without attracting the attention of the family. The case was very compact and complete.

Dr. STENGEL showed a lung with a gumma at the base. It was removed from an old man of about 70. He had had paraplegia with a clear history of syphilis. On opening the right thoracic cavity the lung was collapsed and the cavity was filled with yellowish fluid. At the base there was a hard lump slightly attached to the vertebræ and ribs. When removed it was found to involve the bronchus and blood-vessels. There were other signs of syphilis in the spleen and the blood-vessels were atheromatous.

Dr. S. SOLIS-COHEN showed "Aneurism of the Celiac Axis, with Atrophic Heart." The specimens were removed from a colored man, 30 years old, a chimney-sweep. He had applied to the hospital for treatment; the diagnosis of aneurism of the celiac axis was made, and he was placed in bed. A few days later he died very suddenly. When the abdomen was opened the cavity contained clotted blood, which had escaped from the upper surface of the aneurism, where it had ruptured and passed through the foramen of Winslow into the abdominal cavity. The coats of the aorta were not involved. The blood-vessels were atheromatous, and there were other evidences of syphilis. He said he had contracted syphilis 10 years before his admission to the hospital.

Dr. SANGREE said he had assisted the coroner in making a post-mortem on a case with rupture of the aneurism of the celiac axis a short time ago. The man was a sailor, dying suddenly with abdominal pain. He did not know whether the man had had any symptoms referable to the aneurism, and could not get his previous history.

Dr. M. H. FUSSELL presented specimens of milary tuberculosis in the jejunum and lungs, and also showed Merckel's diverticulum removed from the same subject. The man was 50 years old and had been in good health. He was taken, as the attending physician thought, with typhoid fever, presenting all the symptoms, the rose-colored spots being very well marked. The temperature went up to 105° and then fell to near normal, and remained there for two days, when it again rose to 105°, where it remained until the man died. He was sick about three weeks. The post-mortem showed general tuberculosis. The Peyer's patches were not involved.

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The William Pepper Medical Society gave its eighth annual banquet March 26. Dr. WILLIAM OSLER, of Johns Hopkins, acted as toastmaster. Among those responding to toasts were Drs. PEPPER, WOOD, BILLINGS, MUSSER, STENGEL, TIFFANY, and KRESINGER.

Dr. J. M. DA COSTA gave a dinner on March 23 to Sir HENRY STAFFORD NORTHCOTE.

WASHINGTON LETTER

MEDICAL MATTERS IN CONGRESS

March 30, 1896.

There are now pending in Congress several bills of special interest to the profession of the District of Columbia, and not without interest to the profession at large.

For a number of years the Medical Society of the District of Columbia has been struggling to secure the enactment of a law to regulate the practice of medicine, but not until the present session has it been able to secure the attention of the committees

of the two Houses of Congress. At the beginning of the present session a bill was introduced into both the Senate and House of Representatives. After an elaborate consideration the bill finally passed the House of Representatives in a fairly satisfactory form, and has been favorably reported by the Senate Committee on the District of Columbia, but has not yet been considered by the Senate. It is believed that it will eventually pass that body. It is a curious fact that neither of the committees of Congress could be induced to consider such legislation until it was demonstrated that 47 States and Territories had enacted such laws, the State of New Hampshire and the District of Columbia being the only State and Territory without such statutes.

The Medical Society of the District of Columbia has also presented a bill entitled "A Bill Relating to the Testimony of Physicians in the Courts of the District," which is intended to extend to the citizens of this District the privilege of confidential communications to physicians, similar to the protection which the State of New York has secured to her citizens. This bill is contested by the justices of the Supreme Court of the District of Columbia, on the ground of injustice to litigants, and contrary to public policy to concede the rights of privileged communications to physicians—a monstrous contention. In this enlightened age it is incredible that any court of learned judges should hold that a citizen should be compelled to indirectly criminate himself by the compulsory disclosure, in open court, of his confidential communications made to his physician to enable such physician to manage and treat his case intelligently. Twenty States, comprising one-third of the population of this country, have statute laws establishing the inviolability of such communications. The Senate committee has reported this bill with a favorable recommendation, but the House committee has failed, as yet, to consider it.

The Society to Prevent Cruelty to Animals has had offered in both Houses of Congress a bill to prohibit vivisection in this District, and is urging its passage with unabated energy and intolerance. This society is a formidable body of ladies and gentlemen of high standing in this community, to whom public men will listen and from whom they will accept statements without consideration. As yet neither of the committees have granted a hearing to the Humane Society, and no opportunity has been afforded the profession to combat their statements and assertions and to show the disastrous effects of such proposed legislation.

These matters are of sufficient interest to attract the attention of the profession at large. The profession throughout the country, through their local organizations, should remonstrate by petitions to the two Houses of Congress, and by personal communications to Senators and Representatives, against such legislation as will prohibit animal experimentation. If this bill should become a law by act of Congress, it is more than probable that similar legislation will be proposed in every State and Territory in the country. It is the beginning of a class of legislation that will seriously obstruct the progress of scientific medicine in this country, and effectively close all the biological laboratories.

Health in New Jersey.—According to the report of the County Board of Health, there were 629 deaths, 352 births, and 144 marriages in Hudson County, outside of Hoboken, during the month of February.

BOOK REVIEWS

A Manual of Medical Jurisprudence and Toxicology.—By HENRY C. CHAPMAN, M.D. Second edition, revised. Pp. xv+254. Philadelphia: W. B. Saunders; 1896.

That this little book should have reached a second edition within three years speaks emphatically for its value. In our review in the BULLETIN in January, 1893, we spoke of its advantage to the general practitioner, and particularly commended the way in which it presented the subject.

As a rule medical men have little time or inclination for the study of medical jurisprudence, and consequently often lay themselves open to attack from members of the bar, when, had they devoted a few hours to the reading of a book like the one before us, they would have avoided the legal difficulty. This edition is essentially a reproduction of the first, with the addition of a brief bibliography and several new figures and tables.

Infantile Mortality During Childbirth, and its Prevention.—By A. BROTHERS, M.D., Visiting Gynecologist to Beth Israel Hospital, etc. Pp. 179. New York and Phila.: P. Blakiston, Son & Co.; 1896.

It is rare that one is called upon to review a book dealing specifically with infantile mortality during labor. This essay is the outcome of the Wm. Furness Jenks Prize, for which the author competed, and the trustees are to be congratulated upon their award. Taking the book as a whole, it is certainly a valuable contribution to the subject, the language being clear, well defined, and to the point. The text is marred, however, by ancient and valueless statistical tables. Statistics, at best, when modern, are often faulty and misleading, but when they are old and taken from the pre-antiseptic era, Heaven help us! They should be covered with a blanket and forgotten.

The classification of the subject-matter of the essay is methodical. Under general maternal diseases we fail to find reference to prophylaxis in eclampsia, but to our extreme satisfaction we note the advice to rapidly empty the uterus when convulsions are present. Indeed, we would go further, and state that when constitutional symptoms are present and increasing, with or without the presence of albumin in the urine, pregnancy should be terminated at once.

The chapter on dystocia is interesting and complete. Generally speaking, in case of protracted labor, interference is unnecessary so long as the mother and the child are in good condition. In the reviewer's experience, in the absence of relative or absolute pelvic contraction, a posterior occipital position is by far the most frequent cause of protracted labor, and the necessity of introducing the whole hand into the uterus for diagnosis has been repeatedly emphasized by MARX and by many others. BROTHERS advocates the use of quinine and deprecates that of ergot during labor, and in these respects he is in accord with modern authorities. The rules stated for the treatment of delayed labor are scientific. *Accouchement forcé* receives mention as one of the oldest and best methods. The reviewer has long relegated all other methods of dilatation, except the manual, to the past. After dilating it is positively necessary to deliver rapidly, notwithstanding the statement of BROTHERS to the

contrary. In placenta prævia we agree that, once the diagnosis made, the uterus should be emptied by the elective accouchement. We are pleased to find BROTHERS dwell on the absolute necessity of pelvimetry. The accoucheur should know the woman's pelvis as well as he knows her face. Among the operations for the induction of premature labor we are glad to find the injection of glycerin condemned. High forceps is not countenanced. Version versus forceps is discussed in a masterly manner, although we would like to see the accepted maxim insisted upon that, the head being movable above the brim, version should be the operation of choice. Symphyseotomy is treated of in a step-motherly fashion, but this is excusable since the resurrected operation is young, the reports are meager and somewhat confusing. As a child-saving operation, according to our belief, the method is a failure, for 15 per cent. infantile mortality from an operation intended to save the child is entirely too high. The new WALCHER position, which is described, will decidedly limit the field of symphyseotomy. The treatment of occipito-posterior positions is well discussed, although MARX is misrepresented in the statement that he has advised forcible forceps rotation of the head.

Asphyxia neonati is described thoroughly, although we fail to find mention of the best method of resuscitation, other things equal—that of DEW. The subject of diseases and accidents of the new-born comprises the last chapter of this masterful essay. We have read the entire book with pleasure and with profit, and we recommend it as a book of reference for the practitioner.

The essay is dedicated to ABRAHAM JACOBI, the man who has done so much for the infant and has been such a reliable guide to scores of practitioners.

Mikroskopie und Chemie am Krankenbett.—Leitfaden bei der klinischen Untersuchung und Diagnose. By Professor Dr. HERMANN LENHARTZ, of Hamburg. With numerous illustrations and colored plates. Second revised edition. 12mo, pp. I–XVIII, 1–331. Berlin: Julius Springer, 1895.

Microscopy and chemistry at the bedside is a subject of the greatest importance to the practitioner, yet how few are fully acquainted with it! In view of the truthfulness of this statement, it is unfortunate that, because of the language in which it is written, this excellent work cannot enjoy in this country the attention it would otherwise demand.

On the part of the reader, this treatise presupposes some practical laboratory experience. It assumes that the skill necessary to the proper manipulation of the microscope, the cautious application of tests, and the capability of drawing exact conclusions from results attained, are already possessed. Unless these technicalities have been mastered and become a store of knowledge to be drawn upon at a moment's notice, the author believes the reader cannot do justice to either himself or his patients.

The article upon bacteria and other vegetable parasites is a pleasing example of clear and concise writing. On page 19, under coloration of dry-preparations, a short explanation of the origin of aniline colors is given. This is somewhat irrelevant and out of place. On page 20, staining of slide preparations is mentioned, but in the following chapters coloration of cover-glass-dry-preparations is always spoken of.

The chapters on the animal parasites, the blood, the sputa, and evacuations of the stomach and bowels, are especially clear and valuable.

Urinalysis deservedly occupies a little over one-fifth of the whole treatise. We believe, however, that none but a few of the best and most reliable tests, especially such as can readily and easily be applied, should receive notice. The opening chapter, which considers the normal urine, should be more detailed and give reactions. The chapter on the urine in disease should include color and density, pathologically considered. Detailed statements as to the pathological significance of the reactions to the tests employed would greatly augment the value of the book. In ascertaining the specific gravity, the ancient cylinder figured on p. 243 is justly replaced by a corrugated one such as is suggested by Dr. SQUIBB. Specific gravity beads find no mention. The method of estimating urea by evaporation and extraction with alcohol might well be replaced by the gas-product estimation; by this method quicker results, sufficiently accurate for clinical purposes, are obtained.

Special stress is laid upon GERHARDT's ferric chloride reaction and the importance of the acetone reaction in diabetes. The chemical analysis of calculi has been omitted.

Uroscopy is handled in a pleasing manner. Examination of sediments under cover-glass receives careful consideration; we think examination *without* cover-glass should have received no less notice, since there can be no doubt that many things are found by the latter method which would readily be overlooked by the former. Under the chapter on secretions of the vagina, mention is made of a bacillus apparently peculiar to virginity! We would hardly be willing to base our diagnosis of this state upon the simple presence of this micro-organism.

The book also contains a very comprehensive chapter upon aspiration fluids. A full index and 18 colored lithographs conclude the volume. The print is without reproach, the illustrations numerous and on the whole well executed. The treatise deserves the unbounded recognition of every progressive physician.

BOOKS RECEIVED

Beiträge zur Kenntniss einiger praktisch wichtiger Fracturformen.—By Dr. THEODORE KOCHER, Professor of Surgery at Berne.—Nos. 10, 11, 12. Profusely illustrated. Basil and Leipsic: Carl Sallmann; 1896. Price, paper, frs. 13.50 (\$2.75).

Diets for Infants and Children in Health and in Disease.—By LOUIS STARR, M.D., editor "American Text-Book of the Diseases of Children." Philadelphia: W. B. Saunders, 1896. Price, leather, \$1.25 net.

Vinegar as an Antidote for Carbolic Acid.—(*Pharm. Ztg.*, 1896, XLI, p. 81)

Vinegar has lately been recommended as an antidote for carbolic acid. For this purpose it should be applied by means of a camel's-hair brush to the portions of the skin or mucous membranes affected by the caustic acid. The formation of scars is said to be thereby prevented.

It is also stated that in case of internal poisoning by carbolic acid, vinegar, mixed with an equal quantity of water, attenuates, to some extent, the causticity of the acid. In such cases, however, lavage of the stomach should subsequently be resorted to.

EDITOR'S NOTES

Affiliation of Ohio Medical Colleges.—The University of Cincinnati has taken the Ohio Medical College under its parental wing, and the latter will hereafter be known as the Medical Department of the University of Cincinnati.

Medical Colleges in Trouble.—Three medical colleges in Missouri have been dropped from the list of schools in good standing because of their refusal to comply with requirements of the State Board of Health.

A Mississippi Medical Bill.—A doctor in Mississippi has caused a bill to be introduced in the State Senate which contemplates the right of medical men to attach a lien for services on the crop or wages of the person receiving the same.

The Colorado State Medical Society will hold its annual meeting in Denver, June 16, and continue in session three days. The officers of the society are sparing no efforts to make the meeting a grand success. Many papers are already in the hands of the secretary, and many more are promised.

Quarter-centennial Celebration.—The trustees of the Presbyterian Hospital, Philadelphia, are making extensive preparations for the celebration of the twenty-fifth year of that institution's existence. It will be held on Good Friday evening, April 3. The hospital was incorporated March 25, 1871, and the Board of Trustees was organized April 3 of the same year.

Sault Ste. Marie Calls a Halt.—The city health officer of Sault Ste. Marie, Mich., has issued a circular calling upon the physicians of that place to present their diplomas, licenses, or other documents of qualification on which they registered as medical practitioners, at his office not later than April 1, 1896, after which time those failing to comply with the order will be proceeded against as the statute directs. Sault Ste. Marie is up to date!

Higher Preliminary Education for Pennsylvania.—The University of Pennsylvania will raise the standard of educational requirements for admission to the study of medicine, to that of the Arts and Science courses of the college. It is proposed to advance gradually, so as to make its accomplishment complete in three years. The practice of admitting graduates of three-year schools to the fourth year of the medical course at the university will also be discontinued.

Nebraska's New Law for Medical Men.—Omaha regulars are waging war against physicians who have not complied with the law, recently passed, requiring those engaged in the practice of medicine, surgery, and obstetrics to have certificates from the State Board of Health, and providing punishment for those failing to comply with its requirements. Almost every case taken up thus far has met with defeat by appeal to the Supreme Court or on some technicality, but the doctors who have complied with the provisions of the law are tireless in their efforts to bring delinquents to justice, and no doubt will eventually weed out the unscrupulous quack from the scientifically educated physician.

Pennsylvania State Lunatic Hospital.—A perusal of the annual report of the State Lunatic Hospital of Pennsylvania, located in the suburbs of Harrisburg, shows the admissions of males to exceed those of females, and single lunatics exceed married ones considerably. The laborer is followed by the farmer in point of majority in the male, and the domestic leads all occupations among females. The steward's report for the year shows the expenses of the household to have been \$39,919.54.

Proposed Reservation for Consumptives.—On March 24, Mr. GALLINGER, of New Hampshire, presented petitions and papers from medical men, clergymen, and educators to the United States Senate in favor of setting apart a Government reservation for the benefit of persons in the North suffering from pulmonary diseases, who might be benefited by a change of climate to the salubrious atmosphere of the Rocky-Mountain region. He subsequently introduced a bill setting apart the Fort Stanton Military Reservation in New Mexico.

The Nussbaum Medical Education Bill.—The measure popularly known as the Nussbaum Medical Education bill has become a law. The State medical societies favored the bill, as also did 12 of the 13 medical schools in the State. A representative of Bellevue Hospital Medical School held out, virtually alone, against the bill, but in spite of this opposition the committee reported the bill favorably. Senator NUSSBAUM's bill raises the medical course from three to four years, and allows students who entered college to graduate under the rules in force when they matriculated.

Sanitarium for Negro Consumptives.—Dr. L. A. SCRUGGS, one of the colored physicians of the South, is the leading spirit in a movement to establish a sanitarium for colored consumptives at Southern Pines, N. C. The health reports of one Southern city having a mixed population is quoted by the doctor as showing the number of deaths from consumption to be 3119. Of that number it is claimed 2508 were negroes.

Fifteen thousand dollars will be required to establish the sanitarium, and it is proposed that the control of its affairs shall be vested in a board of trustees equally apportioned between North and South.

Dr. SCRUGGS was graduated from Leonard Medical College at Raleigh, N. C., and was one of the brightest men of his class.

A New Skin and Cancer Hospital building is shortly to be erected in this city at Second avenue and Nineteenth street. The Board of Governors of this institution have sold the valuable property owned by the corporation at Fordham Heights, and the proceeds were used for the purchase of the new site. It may be stated that this institution ranks with the few in this city which are in effect chiefly charitable in their aims. No class of patients require or deserve hospital care more than those who are afflicted with a disease such as cancer, which, up to date, it has proved difficult to cure. Since the old Cancer Hospital has changed its name to the Astor Memorial Hospital, which seems to imply that the intent of the governors is no longer to admit chiefly cancer patients, the new institution to be erected on the above site will fill a great need just so long as it continues to care for the special kind of cases it is assumed to

A New Coroner.—Dr. T. K. TUTHILL has been appointed Coroner in place of Dr. O'MEAGHER, deceased. Since the vacancy had to be filled, Dr. TUTHILL will, we are assured, make a better officer than the county has had the pleasure of possessing for many a day, but, owing to the inherent defects in the present coroner system, we question if any man, however good his intentions and high his purpose, can redeem the office and satisfy the community.

Right of Way for Chicago Physicians.—A new ordinance has been passed by the City Council which gives medical men the right of way on Chicago thoroughfares, as against all processions, persons, vehicles, or animals, when answering professional calls. Permits under the ordinance have been issued, accompanied by a neat badge with a Geneva cross in red, the words "Physician, Chicago," and the number of the permit. The new departure seems to be popular with the physicians, and every man who obtained a permit expressed himself as much pleased with the plan.

Board of Medical Specialists.—The Grand Jury of Essex County, N. J., recently recommended the appointment of a board of medical specialists by the Essex Medical Society, before whom patients admitted to the County Hospital for the Insane can be presented for examination to determine the *physical* cause, if any, of their condition. The idea is eminently practical, and no doubt will meet with favorable consideration. The hospital has 684 patients, and three physicians constitute its medical staff. The proposed board of experts will serve without compensation or expense to the institution.

Proposed Hospital for Foreigners.—A move is on foot to establish a hospital in New York for the treatment of sick foreigners not familiar with the English language. In the proposed hospital charity patients will be received and a small charge made for those who can afford to pay. The New York Society of the Red Cross is taking the initiative in this movement, in conjunction with the consuls of the various nationalities represented here. It is questionable if such a hospital be needed, in view of the fact that the French, Columbus, and German hospitals, are amply prepared to care for foreigners.

Physicians' Mutual Aid Association.—The twenty-seventh annual report of the New York Physicians' Mutual Aid Association has reached us, and it makes a good showing in behalf of the benevolent aims which actuate it. The permanent fund now amounts to \$25,669.31, which will yield an income of \$1200 for strictly *benevolent* purposes the current year. This fund is utilized for giving needy sick members a weekly stipend; and, small as it is, it has proved of incalculable utility to a number of medical men suddenly stricken down by sickness, when of course the income requisite for support of perhaps a large family ceases. A strong plea is made for an increase of this fund, and a ready response should result. There is nothing which should appeal so strongly to professional men as the exigencies staring the sick physician in the face. At such time a loan, even though small, enables urgent expenses to be met, possibly only in part; but even this gives the sick man a degree of mental quietude, so requisite for smooth convalescence. Since now the association has secured a permanent fund which,

with assessments, enables it to pay \$1000 on the death of a member, we trust that future increase of the fund and liberal donation will enable the association to assist to a far greater extent the member when sickness overwhelms him.

Since the last report of the association, nineteen members have died, and the claims of \$1000 each have been promptly paid.

The Need of Public Baths.—We print in full a letter commenting on our recent editorial on this topic:

TO THE EDITOR OF THE A. M.-S. BULLETIN:

Sir—The editorial on this subject in your valuable issue of March 7 is timely and will doubtless influence our city authorities to hasten the construction of the six free baths decided upon by the Board of Health as required by the provisions of the recent act (1895-1896) of the Legislature. That the latter is, as does not seem to be generally known, the result of the indefatigable efforts of the Hon. GOODWIN BROWN, a member of the Lunacy Commission, and the intelligent and wise legislative work of the Hon. GEORGE W. HAMILTON, a practical builder in this city, a member of the Assembly, I am safe in stating, because I was in frequent communication with them during the passage of the act, which applies to all cities in this State. While you are correct, Mr. Editor, in emphasizing the great need of more public baths in this city, you are not quite just to our people in the comparison you make between London, Liverpool, and New York in the number of baths taken by their poor people. Your readers may be interested to know that, including the free baths, which are included in the estimate of the *Outlook*, from which you quoted, the population of New York sent 560,000 people to the public baths in 1894. These numbers are taken from the reports of the Riverside Association Baths, People's Baths, Baron de Hirsch Baths, Demilt Dispensary, and from a statement courteously furnished by Gen. COLLIS, our able Commissioner of Public Works.

These statistics bear testimony to the fact that the New York poor will certainly utilize public baths freely if they have an opportunity. That it is the duty of the city authorities to afford them facilities for bathing cannot be gainsaid. I have so often insisted upon this, that it is gratifying to know that it is at last appreciated and will soon materialize into actuality. Your journal deserves much commendation for the active interest in this greatest hygienic movement of the day.

SIMON BARUCH, M.D.

New York; 51 West Seventieth street.

Epidemic of Typhoid at the Falls.—Niagara Falls has a typhoid-fever epidemic which it attributes to impurity of the water supply. Of all places, one would suppose Niagara Falls would be blessed with a special immunity from a disease of the character in question. The source of infection is undoubtedly the Niagara River, and it will not seem strange that such should be the case when we consider that Tonawanda, North Tonawanda, La Salle, Echota, and Buffalo empty their manufacturing refuse and sewage into this source of supply. It is believed that the sewage-contaminated stream will show upon examination a quantity of organic matter in solution in excess of the quantity it is capable of disposing of even in course, and above the limit of safety. The distance between these towns is small, and purification is therefore impossible by natural means. A great number of the residents of Niagara Falls use well-water, and in many instances this delicious, sparkling spring-water, drawn from a level of the river-bed, teems with organic matter neither more nor less than the product of subsoil drainage. We do not think the authorities would go amiss if they were to institute a minute examination into the condition of these latter. The State might find time to investigate the right of manufacturers to pollute supply streams; or perhaps some ambitious Senator, with the public health at heart, can see visions of prominence in a new move that will insure a lower percentage of mortality from the causes

named, and possibly outrival in results the predictions for the bill recently enacted to regulate the liquor traffic. The cause is certainly worthy of more attention.

The Disputed Leprosy Case.—Dr. GEORGE HENRY FOX, who was commissioned by the Board of Health to examine Long Tong, the Chinaman confined at North Brother Island, to ascertain the foundation, if any, for the charge of erroneous diagnosis brought by the latter's friends, has submitted his report, confirming the diagnosis as one of genuine leprosy.

The Clinical Recorder.—We have received the initial number of a new quarterly, the *Clinical Recorder*, and we welcome it to the ranks of medical journalism. It does not attempt to explain its appearance, since this would entail an "apology for its existence." If future numbers are as scientific as the one on our shelves, neither explanation nor apology will be in order.

Report of the State Board of Charities.—On March 25 the State Board of Charities submitted its annual report. There exist 771 epileptics under the care of the State. In course of time these will be transferred to the Craig colony. The efforts of the managers during the year, the report goes on to say, have been, in addition to the care of the inmates, to extend existing accommodations so as to provide as far as possible for the additional 500 State wards. The report goes on:

This may not be possible until 1896, yet it is earnestly hoped that the greater number of those who can be most benefited by care at the colony can be assured of its advantages in the immediate future.

The State paupers committed to the various State almshouses during the year ending September 30, 1895, numbered 2171, as against 1974 committed the preceding year. The whole number under care in the course of the year 1895 was 2262, as against 2052 in 1894, of which 1673 were provided with transportation and sent to their homes or places of legal settlement in other States and countries, leaving 85 under care October 1, 1895.

The expenditures under the law for the fiscal year ending September 30, 1895, were \$25,233.63, as against \$24,117.11 the preceding year.

The law in respect to pauper Indians was put in operation January 1, 1895, contracts having been entered into by the board with the authorities of Cattaraugus, Erie, Franklin, Niagara, and Onondaga counties. The number of commitments of such Indians, under the law, since then, to October 1, 1895, is 12, of whom four remained under care at the close of the year.

Western Eye, Ear, Nose, and Throat Surgeons to Organize.—The preliminary program of the meeting to be held in parlor S, Midland Hotel, Kansas City, Mo., April 9 and 10, for the purpose of forming a western Society of Eye, Ear, Nose, and Throat Surgeons, as noticed in last issue of the BULLETIN, lies before us. The meeting will be called to order by Dr. J. H. THOMPSON, president Kansas City Academy of Medicine, followed by an address of welcome by Dr. C. LESTER HALL, president of the Missouri State Medical Society, to which response will be made by Dr. R. S. BLACK, president of the Kansas State Medical Society, and the following papers will then be read:

1. Two Cases of Opening of the Lateral Sinus for the Removal of Infectious Thrombus. Recovery in One Case. Dr. C. Barck, St. Louis, Mo. Discussion opened by Dr. Wm. Scheppegegrell, New Orleans, La.
2. The Ocular Manifestations of Hereditary Syphilis. Dr. T. C. Evans, Louisville, Ky. Discussion opened by Dr. LeRoy Dibble, Kansas City, Mo.
3. A paper. Dr. Adolf Alt, St. Louis, Mo.
4. A paper. Dr. A. B. Farnham, Milwaukee, Wis.
5. When Should the Caustery Be Used? Dr. Wm. C.

Pipino, Des Moines, Ia. Discussion opened by Dr. W. L. Dayton, Lincoln, Neb.

6. Empyema of the Frontal Sinus, with Report of Cases; Autopsy. Dr. C. P. Ambler, Canton, Ohio. Discussion opened by Dr. F. B. Tiffany, Kansas City, Mo.

7. The Use of Peroxide of Hydrogen in Diseases of the Throat, Nose, and Ear. Dr. Wm. Scheppegegrell, New Orleans, La. Discussion opened by Dr. J. W. Gaines, Kansas City, Mo.

8. A Case of Asthma Due to Nasal Obstruction and Adenoids of Pharyngeal Vault. Dr. W. W. Bulette, Pueblo, Col. Discussion opened by Dr. J. E. Logan, Kansas City.

9. Paper. Dr. Wm. Porter, St. Louis, Mo.

10. Tinnitus Aurium. Dr. J. W. May, Kansas City, Kan. Discussion opened by Dr. Adolf Alt, St. Louis, Mo.

11. Paper. Dr. Robert Leavy, Denver, Col.

12. Panophthalmitis caused by Leucoma Adherens (Anterior Synechia), and the Treatment of Anterior Synechia. Dr. L. A. Lebeau, St. Louis, Mo. Discussion opened by Dr. J. E. Minney, Topeka, Kan.

13. Tubercular Laryngitis at High Altitudes. Dr. B. P. Anderson, Colorado Springs, Col. Discussion opened by Dr. D. Milton Greene, Grand Rapids, Mich.

14. Why Deafness Afflicts Some and Not All Who Suffer from Diseases of the Upper Air-passages. Dr. W. F. Strangways, Flint, Mich. Discussion opened by Dr. G. A. Wall, Topeka, Kan.

15. Purulent Brain Infection from Otitis Media. Dr. B. E. Fryer, Kansas City, Mo. Discussion opened by Dr. C. Barck, St. Louis, Mo.

16. Subjective Sensations. Dr. W. E. McVey, Topeka, Kan. Discussion opened by Dr. John C. Smith, St. Louis.

17. Which Operation for Senile Cataract Should the Beginner Select? Dr. J. H. Thompson, Kansas City. Discussion opened by Dr. T. C. Evans, Louisville, Ky.

18. The Clinical Examination of Deaf-Mutes. S. T. Walker, Jacksonville, Ill., Superintendent of Illinois State Institution of the Deaf and Dumb. Discussion opened by H. C. Hammond, Superintendent of Kansas State Institute for Deaf and Dumb, Olathe, Kan.

19. Usual Head Formation with Eye, Nose, and Throat Complications. Dr. H. W. Woodruff, Joliet, Ill. Discussion opened by Dr. R. S. McGee, Topeka, Kan.

20. Adenoid Vegetations of the Vault of the Pharynx; Report of Cases. Dr. C. E. Clark, Kansas City. Discussion opened by Dr. M. F. Jarrett, Fort Scott, Kan.

21. A paper. Dr. John A. James-James, St. Louis, Mo.

22. Errors in the Literature on Javal's Ophthalmometer for the Measure of Astigmatism. Dr. G. W. Grove, Kansas City, Mo. Discussion opened by Dr. W. A. Shoemaker, St. Louis, Mo.

23. The Present Status of the Physiological Anatomy of Vocalization and Phonation. Dr. Edward H. Schaefer, Kansas City, Mo. Discussion opened by Dr. H. W. Loeb, St. Louis, Mo.

24. Eye Affections as Related to Nasal Diseases. Dr. George E. Bellows, Kansas City, Mo. Discussion opened by Dr. E. E. Hamilton, Wichita, Kan.

25. Organization a Protecting Factor for the Up-to-date Physician. Dr. J. D. C. Hoit, Elmwood, Ill. Discussion opened by Dr. B. P. Anderson, Colorado Springs, Col.

26. A paper. Dr. H. W. Loeb, St. Louis, Mo.

Dr. Hal Foster is the acting secretary.

Medical Association of Georgia.—The following preliminary program of the forty-seventh annual session of the Medical Association of Georgia, to be held at Augusta April 15, 16, and 17, is announced:

PAPERS

The Treatment of Pneumonia, W. J. Mathews, M.D., Middleton.

Asthenopia, J. H. Shorter, M.D., Macon.

Tetanus in the Negro, D. H. Howell, M.D., Atlanta.

Suprapubic Operation for Fibroids, with Report of cases, D. D. Quillian, M.D., Athens.

Title not announced, Bernard Wolff, M.D., Atlanta.

The Anesthetic, L. B. Grandy, M.D., Atlanta.

Placenta Prævia, and Report of Cases, J. R. Shannon, M.D., Cabaniss.

The Medical Side of Appendicitis, E. H. Richardson, M.D., Atlanta.

Some Albuminuric Complications of Pregnancy, Howard J. Williams, M.D., Macon.

Nephritis of the New-born, with Report of Three Cases, W. W. Terrell, M.D., Douglas.

Pneumonia, J. L. Lovvorn, M.D., Bowden.

Title not announced, J. B. S. Holmes, M.D., Atlanta.

The After Treatment of Tracheotomy Cases of Membranous Croup, R. M. Harbin, M.D., Rome.

When do Adenoids and Polypi Cause Asthma and Hay Fever? A. G. Hobbs, M.D., Atlanta.

Some Injuries of the Eyeball, S. Latimer Phillips, M.D., Savannah.

Treatment of Skin Disfigurements by Electrolysis, M. B. Hutchins, M.D., Atlanta.

What is the Best Treatment in Injuries of the Elbow-joint? C. H. Richardson, M.D., Montezuma.

Inguinal Hernia, W. F. Westmoreland, M.D., Atlanta.

Report of a Few Interesting Surgical and Gynecological Cases, Montague L. Boyd, M.D., Savannah.

Title not announced, F. W. McRae, M.D., Atlanta.

Glaucoma in Relation to General Practice, A. W. Stirling, M.D., Atlanta.

The Albany County Medical Society held its semi-monthly meeting at Alumni Hall on the 25th ultimo. Dr. L. H. NEWMAN read a paper on "The Influence of the Pneumococcus on the Clinical History of Pulmonary Tuberculosis." He also gave a report of the cases. Dr. O. D. BALL read a paper on "Infantile Scurvy." The next meeting of the society will be April 8.

Increase of Crime.—From the annual report of the Secretary of Criminal Statistics it appears that there has been a considerable increase in crime in New York State during the year 1895. There were 71,491 convictions in the State last year, against 68,146 in 1894, an increase of 3,345 in one year.

Navy Items.—Passed Assistant Surgeon B. R. Ward was detached from Coast Survey steamer *Blake* and ordered to the *San Francisco*, holding survey on Chaplain J. J. Kane, in London, *en route*.

Surgeon J. C. Wise was ordered to examination for promotion March 27.

Antitoxin Investigation.—The Committee of the American Pediatric Society has, *through its members*, issued the following communication to the profession:

Collective Investigation of the Antitoxin Treatment of Diphtheria in Private Practice by the American Pediatric Society.

The committee of this society to which this matter has been referred desires to place before the profession, for collective investigation, the subject of Antitoxin Treatment of Diphtheria, the cases for the investigation to be collected entirely outside of hospital practice and published as the report of the society.

Two points are to be made prominent: First, the length of time elapsing between the first appearance of the disease and the administration of the serum antitoxin. This is to be stated as accurately as possible even to fractions of a day. Second, the severity of the disease as shown by: (a) extent of membrane; (b) general prostration; (c) involvement of the larynx.

As everyone knows, bare figures may in no way adequately express the full facts; remarks are, therefore, called for, and it is hoped the contributors will give fully their impressions. A diphtheria case under antitoxin may do very well and yet the physician reflect at the end that it was one which might be expected to recover under any form of treatment. On the other hand, one requiring intubation may recover promptly and without even becoming much prostrated.

The laboratory investigators distinctly state, that antitoxin acts in some way to prevent the damage to cells by the toxin of the bacillus diphtheriae. After the toxin has fatally injured the cells—a period approximately set down for guinea-pigs as three days—the antitoxin is not found efficacious to save the life of the animal. Furthermore, bacteriologists do not select decrepit guinea-pigs, or those enfeebled by disease, but healthy half-grown pigs of a general average body weight. Hence, it is desirable that the constitutional condition of the patient shall be noted in every instance.

It is thought that family practice offers the only fair test of the efficacy of serum antitoxin treatment, and the most trustworthy statistics must be gathered from that source.

In these investigations we wish to bring together facts and opinions from cases which have, what may be called, a fair chance of demonstrating whether antitoxin accomplishes in the human body what experimentally it has been found to do with uniformity in animals.

We cordially invite the co-operation of members of the profession in this investigation, in return for which the Society will mail to each contributor the full report when it is published. An abstract giving the main facts will, however, appear in the leading medical journals immediately after the meeting of the Society in May.

Please fill out the accompanying blank and return it *at your earliest convenience* either to the president or the secretary of the society. Cases received after May 1 cannot be included in the society's report.

In behalf of the Society,

JOSEPH O'DWYER, M.D., *President*,
967 Lexington avenue, New York city.

SAMUEL S. ADAMS, M.D., *Secretary*,
1 Dupont circle, Washington, D. C.

L. EMMETT HOLT, M.D.

WILLIAM P. NORTHRUP, M.D.,
Executive Committee of the Council.

The investigation blank attached thereto reads as follows:

Please reply to the following inquiries; if it is not possible to answer all of them, answer such as are positively known, even if but two or three:

1. Age? Sex?
2. Condition—Good? Fair? Bad?
3. Time in fractions of a day, if known, from first appearance of the disease to first injection?
4. Was diagnosis confirmed by culture?
5. Number of injections made?
6. Extent of membrane—Tonsils? Nose? Pharynx? Larynx?
7. Operation—Intubation? Tracheotomy?
8. Complications or Sequelæ—Broncho-pneumonia? Nephritis? Sepsis? Paralysis?
9. Result?
10. Remarks; including other treatment, kind of antitoxin used, general impressions regarding the case, etc.
11. Name of reporter? Address?

Practice in Arabia.—Dr. FREDERICK PETERSON, knowing that it would prove interesting to readers of the BULLETIN, kindly sends us the following letter, recently received from Arabia:

BUSRAH, ARABIA, January 30, 1896.

My dear Dr. PETERSON:

I have given over 900 treatments and almost from necessity dispensed my own remedies.

I have had only a few nervous cases. A case of exophthalmic goiter, however, was to me very interesting from the fact of the great improvement on digitalis (Finch) only. I recommended the thyroid extract, but the patient and friends did not understand.

Eye cases, very many.

Ear cases, a number. One recent case was of some interest from the fact that an abscess over the mastoid process of the temporal bone extended back to the mid-line of the occipital bone and contained over Ojss. of pus. Periosteum covering mastoid process apparently gone and bone necrosed. Trust that the evacuation of pus and the drainage established will prove a success. The man, from the appearances, should have been dead days before his coming to the dispensary. This was a case of bilateral abscess (purulent otitis media), but the left side had become much better, which rendered an operation on that side unnecessary.

A great many cases, in fact the majority, consist of rheumatism and Busrah fever (malignant remittent and malignant intermittent).

My introduction to surgical cases was in this wise:

A patient cut his foot on a piece of glass. Came to dispensary to be treated. I did it as nearly antiseptically as possible. Washed foot, closed wound, iodoform, absorbent cotton-bandages. Result, or rather after-results, this: Two hours later, time for prayers (Moslem) came. I saw the man go to the water's edge, take off bandage, wash his feet in the muddy water of the stream, say his prayers, and then deliberately pick up a handful of dust from the road, and sprinkle on the cut. The foot wound healed up by *first intention*.

The second case very similar. A bridge-tender cut and smashed his foot. He put all sorts of things on it. Especially fond of the gut of a sheep, which was put on unsecured, as it came from the animal. Abscess formed in the upper third (internal surface) of thigh. Came to dispensary

in that condition. Again antiseptic treatment. Again the five washings before prayers. Again a good cure.

I have therefore a very strong(?) faith(?) in asepsis in this place. By the way it was not only in these cases, but over and over again has the same thing happened.

The first case I saw was one of three gunshot wounds, in Muscat. The wounds were nearly healed. Asking what had been used was told boiled onions and oil.

Another interesting case was one of hemorrhoids in which I recommended thorough cleansing with soap and water in order to remove accumulated grime. Was amused some days after to be asked (through another interpreter) if it was necessary to wash the parts with *meat juice* any longer.

The above is a sample of my experience in professional line since reaching Busrah.

I am very truly yours,

H. R. LANKFORD WORRALL.

Personal.—EDWIN A. BOWERMAN, of Rochester, has been appointed first assistant physician of the Buffalo State Hospital, and LOUIS W. DODSON, of Binghamton, first assistant physician in the Long Island State Hospital. Both are civil-service appointments.

The Charities Commissioners of Brooklyn have appointed Dr. WILLIAM MADDREN visiting surgeon at the Flatbush Hospital, vice Dr. S. H. BARBER, deceased; and Dr. WILLIAM SIMMONS assistant visiting ophthalmic surgeon. The appointments were made on recommendation of the Staff Association of the hospital.

Obituary.—Dr. THEODORE C. HEYL, a retired surgeon of the United States Navy, died in this city on March 21. He was graduated from the University of Pennsylvania, and entered the Navy as assistant surgeon in March, 1870, retiring from the service because of ill health in December, 1891.

Dr. D. D. FRANKLYN, of Corry, Pa., died at that place on March 18.

Dr. GEORGE M. DOANE, of Wilmington, Del., died in that city on the 19th ult.

Dr. W. H. COOVER died in Kansas City, Mo., March 17, at the age of 66 years.

Dr. H. M. OBERHOLTZER died at his home in Terre Hill, Pa., on March 19. He was 44 years of age.

Dr. A. LEWIS GAUBERT died in Tyron, N. C. He was graduated from Bowdoin Medical School in 1874.

Dr. JOHN VAN BUREN GREEN died in this city on March 17. He was graduated from Bellevue Hospital Medical College in 1879.

Dr. A. R. T. GROVE, of York County, Pa., recently died in Baltimore. He was a member of the York County Medical Society.

Dr. ASA W. JAYNE, a prominent North Tona-wanda, N. Y., physician, and until recently health officer, died in that place on March 19.

Dr. HUGO WALTHER, of Newark, N. J., died in that city on the 29th ultimo, aged 32 years. He was graduated from Columbia College, New York.

Dr. EUGENE SCHEIDT, a graduate of a German institution and a member of the Kansas Medical Society, died recently at his home in Alma, Kan.

Dr. EDWIN HAINES, of Preston Hollow, N. Y., died on March 19 at the age of 52 years. He was graduated from the Albany Medical College in 1867.

Dr. M. M. ROYER, a prominent physician of Sterling, Ill., died recently in Chicago. He was graduated from the Philadelphia Medical College in 1855.

Dr. ELWOOD BARKER died at his home in Lansdowne, Pa., on March 21, at the age of 57 years.

He was graduated from the Jefferson Medical College, Philadelphia, in 1861.

Dr. REVERDY B. STEWART, a prominent physician of Warren, Pa., recently died at that place. He was graduated from the Medical Department of the University of Maryland in 1865.

Dr. CHARLES W. G. SCHLEMM, a prominent physician of Reading, Pa., died on March 22, aged 73 years. He was graduated from the University of Pennsylvania with the class of '48.

Dr. MOSES M. ROYER, an old and prominent physician of Chicago, died in that city on March 22. He was a native of Pennsylvania and was graduated from the University of Pennsylvania with the class of '55.

Dr. EDWARD WIGGLESWORTH, a prominent physician, and writer on dermatological subjects, recently died at his home in Boston. He was graduated from Harvard Medical School, Boston, Mass., in 1865.

Dr. SOLOMON S. NEWBRO, a pioneer physician of Lansing, Mich., died at his home in that city on the 26th ult. He was born at Mohecan, O., June 23, 1822, and was graduated from a medical college in Cleveland.

Dr. JACOB M. GEMMILL died in Philadelphia, Pa., on March 21. Dr. GEMMILL was born September 24, 1810, and was graduated from Jefferson Medical College with the class of '31. He was at one time president of the State Medical Society and also of the Blair County Medical Society.

Dr. EMMA W. EDWARDS, of Newark, N. J., died at Clearwater, Fla., on the 29th ultimo, where she went for improvement of her health. She was graduated from the Woman's Medical College of the New York Infirmary in 1870, and practiced her profession in Newark for 18 years. She was attending physician to the Home for Aged Women.

The medical profession of St. Louis, Mo., has lost one of its brightest ornaments in the recent death of Dr. L. CH. BOISLINIÈRE. He was born in the West Indies in 1816, was graduated in law at Paris, and in medicine from the St. Louis Medical College in 1848. In 1870 he became professor of obstetrics in his alma mater, and at the time of his death was professor emeritus.

Dr. GRACE M. PRESTON died in Pasadena, Cal., on the 20th ult. She was born in Somerville, Mass., Nov. 1, 1860; was graduated from Boston University Medical School with highest honors, in 1886; from the Woman's Medical College of New York city in 1890; studied in Paris for one year, and received the degree of A.M. from her alma mater in 1889. She was resident physician at Smith College for several years, consulting physician at Dickenson Hospital, Northampton, and a member of the Massachusetts Medical Society.

Dr. JOB S. CRANE died suddenly in St. Augustine, Fla., on the 27th of March. He was born in Elizabeth, N. J., in 1825, one of his ancestors having founded that city. He was graduated from the College of Physicians and Surgeons in 1849, and had practiced in Elizabeth since that time. He was one of the founders of the Union County Medical Society, and was for many years the president of the Medical Board of the Elizabeth General Hospital. Aside from the practice of medicine, Dr. CRANE took an active part in city politics, and during the financial troubles which existed in Elizabeth he was one of her wisest counselors. He is survived by a wife and three children.

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No. 15

COLD BATHS

THE cold bath, as a therapeutic measure for the reduction of abnormally high temperatures, has been in use for several decades. It has had its strong advocates and its vigorous opponents. The most ardent supporters of the cold-bath treatment in typhoid fever, where it has been most used, have not been able to give a rational explanation of the *modus operandi* in lowering the temperature, neither have its opponents demonstrated conclusively why it should not be employed.

It has been claimed by some that the cold-bath treatment has been followed by a high mortality, while others, who are the most enthusiastic in reference to its value, have published statistical results which on their face show an exceedingly low mortality. Again, others who do not fully believe in the employment of the cold bath to reduce temperature, and even feel a personal conviction that they have been subjecting their patients to a most distressing method of treatment by its use, have nevertheless been forced to the conclusion that the mortality was reduced, apparently as the direct result of the action of the cold-bath treatment. If these latter results be true, there must be some logical explanation of the action of the cold-bath treatment in these febrile conditions. It must also be explainable why it is that in some instances the bath appears to have been the direct exciting cause in producing the death of the patient, while in other instances it appears to be equally as certain that the cold bath was the essential agent in saving the patient's life.

To understand thoroughly these directly opposite statements as to the results obtainable from the cold baths necessitates an accurate conception of:

(1) The laws by which the bodily temperature is produced and maintained at a normal standard; (2) the function of the skin and its alternating action with the liver and kidneys or the so-called deep or excreting glands; and (3) the causes and method of action of the etiological factors which produce these abnormally high temperatures.

A careful perusal of a preceding leader on the physiology of the skin will make plain in a large measure the function of the skin in its general relation to the deeper or excretory organs, to wit, the liver and kidneys.

The normal bodily temperature is due to three distinct factors: First, the oxidation of the oxidizable food-stuffs that are taken into the system, and the continued friction of the molecular structures of the body. Thus a definite amount of heat is generated in a given space of time. Second, the excretion of heat, by all of the glandular organs of the system, but chiefly by the skin and its excretory glands. Third, the intervention of the nervous mechanism, so that a uniform and harmonious balance is maintained between the production and the excretion of heat, no matter what the surrounding temperature may chance to be. Thus, if the surrounding atmosphere is cold, the excretion of heat is less, or the production is greater. On the other hand, if the surrounding temperature is higher than the normal of the human body, the production of heat is less, or the excretion of heat is greater. In many instances these two functions act in conjunction, so that under all circumstances and at all times the normal temperature of 37° C., or 98.6° F., is uniformly maintained if the physiological economy is acting perfectly.

An increase in the bodily temperature above the

normal standard is always caused by factors or conditions that augment the production of heat within the system, or those that decrease the excretion of heat from the body.

While much is being said and written about increased oxidation as an etiological factor in the production of an abnormal rise in the temperature, a close analysis of all the cases in which the bodily temperature rises above the normal standard, together with a careful study of the excrementitious katabolic products of the body, proves conclusively that the system, taken as a whole, is in a state of suboxidation. In fact, the system is usually in that state in which there is both a decreased production and a decreased excretion of heat; but, as a rule, the latter phenomenon far exceeds the former. At this point it may be well to note the fact that decreased excretion, without any disturbance or lowering of the oxidation processes, does no harm, as instanced by those well-authenticated cases that have been recorded, in which the bodily temperature ranged between 114° F. and 124° F. for days and weeks at a time. In these cases the metabolism of the body was perfectly performed, as evidenced by the normal composition of the excreta, but for some so far unexplainable reason the excretion of the heat from the body was not as rapidly performed as the heat was generated. Even under these circumstances the patients so affected maintained a fair degree of health and ultimately were restored to an absolutely normal state, both in regard to the production and excretion of heat. These cases are simply mentioned to demonstrate more conclusively that it is not the increased bodily temperature that needs attention, but the causation of this increase in the temperature that must be accurately recognized and removed to produce absolute results in restoring the normal bodily heat.

The three factors that tend to disturb the oxidation processes of the system and retard the excretion of heat are as follows:

First, abnormal fermentation of the food-stuffs contained normally in the alimentary canal. This causes an undue irritation of the afferent or centripetal nerves, so that the central nervous system receives reflex impulses from the periphery, that are in turn followed by efferent impulses sent out from the central nervous system through the centrifugal nerves which supply the glandular organs. Impulses of this abnormal character interfere with the normal working of the system, and thus tend to retard greatly the excretion of heat from the system, in consequence of which the bodily temper-

ature rises. This abnormal fermentation also interferes with the perfect transmutation of the food-stuffs. It also results in the formation of various toxic compounds, which are absorbed into the blood from the alimentary tract, together with the normal nutritive pabulum. Thus the regular supply of food to the system is cut down both as regards quantity and quality, and in consequence general nutrition is lowered throughout the whole economy.

A well-defined state of suboxidation is developed, as evidenced by a decided lowering in the perfection of the katabolic products of metabolism that are excreted by the kidneys.

When these toxins are once within the system they also act upon the nervous mechanism as abnormal irritants, which, together with the undue peripheral reflex irritation already described, results in a decided decrease in the excretion of heat, and thus the bodily temperature rises above the normal standard. At the same time the actual heat production within the body from oxidation is positively decreased. The introduction of the toxins and the lowering of the nutritive supply naturally increase the work of all the excretory organs, and at the same time their nutrition is reduced. This still further decreases the perfection of metabolism throughout the system, and induces progressive retrograde changes in the epithelial cells of all the glandular organs and structures of the body. These degenerative changes in the epithelial cells still further decrease the powers of the glandular system to excrete heat, and the katabolic products of oxidation;—all of which tend to keep the bodily temperature above the normal.

The second factor that acts to increase the bodily temperature above the normal is a disturbance in the processes of oxidation and the development of toxins in the body, or that condition sometimes described as leucomain-poisoning. When this occurs the toxins irritate the nervous mechanism, thus disturbing glandular action and retarding the excretion of heat. While this is taking place the glandular organs are called upon to eliminate these toxic substances from the body. This increases the work to be accomplished by these glandular structures; and unless at the same time their nutrition is proportionally increased the epithelial structures will undergo retrograde changes as described in the first instance. All these changes and the retained products of imperfect oxidation, together with the toxins already described, unduly irritate the nervous mechanism and retard more and more the excretion of heat. While these transmutations are being effec-

ted the oxidation processes are constantly being lowered, and the katabolic products in consequence are less and less perfectly formed and become more irritating or highly toxic in character.

The third factor in producing the abnormal temperature is the direct introduction into the system of some form of micro-organism or its toxin, or the action of the toxin (produced out of the proteid elements constituting the animal economy) which has been developed by the presence of the abnormal organism on or in the structures of the body. Under all these varying conditions there is introduced into the system a more or less virulent toxin that has derived its originating factor, although the toxin itself may have been developed within the system, from some source wholly extraneous to the physiological economy, as illustrated in the infectious class of diseases. In every instance the toxin is a profound irritant to the nervous mechanism, and at once disturbs the harmonious balance sustained through the body in its normal physiological state. Heat excretion is at once retarded, and all the excretory organs attempt to rid the system of these foreign substances. In attempting to accomplish this increased amount of work at a time that the nutritive condition of the economy is defective, the functional activity of the system at large is impaired; digestion, absorption, and assimilation in general are retarded. As a natural sequence a state of profound suboxidation is at once induced. The system becomes filled with the imperfectly formed katabolic products of tissue metabolism as well as with the uneliminated toxins. As a result the nervous system is intensely irritated, heat excretion is partially or totally arrested. In the former instance the bodily temperature rises to several degrees above the normal. In the latter the rise is so rapid that nervous exhaustion quickly ensues, and is usually followed by collapse, which is characterized by a sudden excretion of the heat, a rapid fall in the bodily temperature, and sudden death.

With an accurate conception of the methods by which animal heat is produced and maintained, and a perfect comprehension of the causes and conditions that permit the bodily temperature to rise above the normal limits, the physiological action of the cold sponging or bath becomes at once clear and finds its appropriate place in therapy. Empiricism in the use of the cold bath gives place to scientific certainty.

When the fever-heated patient is stripped and wrapped in a cold sheet, or sponged with tepid or cold water, alcohol and water, or is placed in a cold

bath, it causes a decided increase in the radiation or excretion of heat from the surface of the body. It cools the blood circulating in the capillary blood-vessels contained in the skin, and thus the blood sent back to the deep or excretory organs is a shade cooler than obtains before the bath. These changes do not increase, however, the excretion of the toxins; therefore the result of the bath, if this is all that can be accomplished by its use, is to subject the individual to great discomfort, lower the surface temperature for a very short time, without materially benefiting the pathological condition. Fortunately far more can be accomplished. The stimulating action of the cold applied to the skin in this manner causes a contraction of the surface blood-vessels, and a large volume of blood is thereby transferred from the capillaries of the surface of the body to those that go to make up the splanchnic arcade and those of the deep and excreting organs. Thus the liver and kidneys are at once the seat of a large afflux of blood from the surface. When this change is brought about quickly, as it usually is, under these circumstances, and the force of the heart is insufficient to fully sustain this sudden shifting of so large a bulk of blood from one vascular arcade to another, there result an intense congestion of the liver and kidneys, a slowing or arrest of the circulation in the kidneys, and a suspension of their function, a greater accumulation of toxins within the body, intense poisoning of the nervous system, followed in short order by death, which in this instance is directly traceable to the cold bath. This has occurred frequently and has undoubtedly led many practitioners to condemn and abandon the cold-bath treatment.

On the other hand, when the heart is sufficiently strong and properly stimulated, before, during, and after the bath, and provided the patient is also vigorously rubbed or massaged while in the bath, this sudden shifting of the surface blood to the splanchnic arcade, while it produces quite as intense an afflux of blood to the liver and kidneys, is not followed by a stagnation of the blood in the latter organs and arrest of their function. The circulation in this instance is actively maintained in large volumes through these organs. This accomplished, their excretory power is greatly augmented, the special toxins of disease and the faulty products of metabolism are more rapidly eliminated, which greatly relieves the pathological condition, and makes possible a much higher grade of nutrition,—all of which favors recovery. Moreover, the application of the cold to the surface of the body, together with the

friction, is a great factor in reflexly acting upon these deep excretory organs. In this manner the impulses that are applied at the periphery are sent up from the skin through the centripetal nerves to the central nervous system, whence they are sent back through the centrifugal nerves to the deep or excreting glands as innervating impulses, thus exciting these organs to greater excretory activity. This accomplished, the glandular system at large is enabled to maintain a better nutritive condition through the body, and the eliminating organs continuously excrete, more rapidly, the toxins of disease, and also the waste products of the imperfect oxidation, that are always developed in consequence of the existing pathological conditions.

The cold bath, therefore, should always be commenced early in the febrile disease, before the glandular organs have become badly damaged, and prior to the intense weakening of the heart and the exhaustion of the nervous system that are apt to be a part of every infectious disease. When either one or both of these conditions have been developed, this sudden afflux of blood to the splanchnic arcade is liable to be followed by an arrest of the circulating current of blood in the kidneys, a suspension of their function, and sudden death.

When the cold bath is employed early in the disease, and the excretory powers of the deep glands are thereby augmented, the reduction in bodily heat is not only temporary, but permanent, in the sense that the temperature remains down for several hours after the sponging or bath. The temperature runs lower throughout the whole course of the disease, and general mortality, other things being equal, is decidedly reduced to the minimum. Great care must be exercised in the employment of the cold bath, and all its details accurately carried out, otherwise failure is sure to follow its use. It should always be commenced early in the course of the disease, when the circulation can be fully and actively sustained, and not late, when the heart-action is enfeebled and totally unable to sustain this sudden shifting of the blood from one arcade to another.

The tonic of the nervous system is another factor that must not be lost sight of, if success, and not failure, is to follow the employment of the cold-bath treatment as an antipyretic measure. The use of the cold bath before nerve exhaustion has been developed results in increased glandular activity, and greatly augments the excretory power of these organs. It thus favors a more rapid elimination of the toxins, and makes it possible to sustain a higher grade of nutrition; while the shock of the cold

bath when the nervous system is in a state of semi-exhaustion, and the excretory glands are strained to their utmost limit, will arrest the function of the kidneys and be the direct and exciting cause of death.

The cold bath, like all powerful remedial agents, is dangerous unless it is properly utilized, but when it is scientifically employed it becomes a consummate power for good, and its full value cannot be overestimated.

MISCELLANEOUS ITEMS

Sugar in the Dressing of Furuncles and of Carbuncle.—T. RICHARDSON (*La Sem. méd.*, XVI, p. xxvi)

According to the author, sugar—which is so frequently employed as a household remedy in the dressing of wounds—has the singular effect of accelerating the softening of furuncles and anthrax. The best method, he states, is to freely powder with it flaxseed poultices, which should be applied hot upon the regions affected. Since Dr. R. has adopted this mode of treatment, he has rarely been obliged to have recourse to crucial incision, even in cases of carbuncle.

Orexin as a Stomachic.—HOLM (*Ther. Monatsh.*, 1896, X, p. 11)

The author has made clinical investigations to determine the value of orexin as a stomachic. The results of his researches seem to show that this remedy is a true stomachic, and gives good results as an appetizer in diseases in which loss of appetite is one of the symptoms. He has treated 33 cases, as follows: Anemia, 11; gastric catarrh, 7; intestinal catarrh, 1; phthisis, 8; convalescents, 3; vomiting in pregnancy, 3. Of the total number, 5 withdrew from the treatment. In 9 of the cases good success was obtained, as indicated by the increased weight of the patients, as well as by the improvement in their general health. In 12 other cases success was had, in that an increase of the appetite was noted. Four cases gave neither a positive nor a negative result, and in but 2 cases was failure encountered. One of the latter cases was that of a patient in the last stage of phthisis, and the other was one of hysteria, in which probably secondary circumstances occasioned the failure of the treatment.

Dr. H. administered basic orexin in preference to the hydrochlorate, as he found the former to possess equal therapeutical power to the latter, with the advantage of being free from the unpleasant secondary effects which the salt exerts upon the mucous membrane of the mouth and esophagus. With regard to the dose, the author states that he never exceeded 0.25 gme. ($3\frac{1}{2}$ grn.) singly, or 0.5 gme. ($7\frac{1}{2}$ grn.) per day. If but one dose was administered daily, he ordered it to be taken half an hour before the midday meal; if two doses were given the second was to be taken shortly before supper. In vomiting in pregnancy he gave one dose of the remedy shortly before supper.

The author prescribed the orexin in powder form. He maintains that the contradictory reports which have appeared regarding the value of orexin as a stomachic are ascribable chiefly to the fact that coated pills were usually employed, which are but partially dissolved by the stomach.

ORIGINAL CONTRIBUTIONS

SKIN-GRAFTING AND TRANSPLANTATION OF FLAPS; A CONSIDERATION OF THE VARIOUS METHODS —REPORT OF A CASE*

By E. J. MELLISH, M.D.

Instructor in Surgery, Rush Medical College; Attending Physician and Surgeon, St. Joseph's Hospital Dispensary, Chicago

SKIN-GRAFTING received its general adoption as a modern surgical procedure in December, 1869, from REVERDIN, an interne in La Charité Hospital, Paris.

He employed only the epidermic layer of the skin, using pieces about the size of a large pin's head, which included not only the stratum corneum, but a part of the rete mucosum. These were placed, rete side down, upon healthy granulations.

In the year following the publication of REVERDIN's article on epidermal grafting, Dr. FRANK H. HAMILTON (*New York Medical Gazette*, August 20, 1870) claimed precedence for the principle of skin-grafting. He claimed to have suggested the operation in 1847, but not to have practiced it until 1854. His operation, as described, was, however, simply a plastic operation, a transplantation of the whole skin and adiposa. It was transplantation of a flap from one leg to the other by the pedicle method, the pedicle not being severed until four weeks after the beginning of the operation.

In 1876 Dr. J. R. WOLFE (*Medical Times and Gazette*, No. 1353, June 3, 1876), of Glasgow, brought to the notice of the profession a method of *skin-transportation* which is known as Wolfe's method. It consists in the transportation of a large piece of the whole thickness of the skin, without a particle of adipose tissue, from a distant part to fill up a gap. The piece is made large enough to entirely fill the defect, after allowing one-third, in length and width, for contraction. It is freed from the subcutaneous tissue carefully, made to exactly fit into the gap, and is sutured in perfect coaptation to the margins of integument surrounding it. The implantation is made upon a freshly denuded surface.

In 1877 Dr. J. H. GIRDNER (*Medical Record*, XX, 119, 1881) successfully used grafts taken from the dead subject.

In 1880 Dr. E. FISCHER (*Zeitschrift der Chirurgie*, XIII, p. 193, 1880), of Strasburg, devised the method of grafting large strips of skin upon ulcers. He used pieces of skin free from subcutaneous tissue, and they were simply laid upon the unbroken granulations, previously rendered ischemic by means of Esmarch's method.

In 1886 C. THIERSCH (Surgical Society, Berlin, 1886, and extensively reported by his assistant, Dr. E. PLESSING, in *Langenbeck's Archives of Surgery*, 1888) promulgated a method of skin-transplantation which is known as Thiersch's method. It is the transplantation of large strips of epidermis, including a portion of the rete mucosum and connective tissue

from the tips of the papillæ, upon a fresh or a granulation surface.

The grafts should be cut with a razor or section knife, kept wet with normal sodium-chloride solution, and transferred immediately to the denuded surface. They should be placed so that the edge of each succeeding graft slightly overlaps that of the preceding one. If this precaution be not observed, granulation tissue is apt to grow up between the grafts, causing partial or complete destruction; in either event retarding the healing process.

These grafts "take" well upon a surface of aseptic granulations, but where contraction is especially to be avoided it is best to have a fresh surface to graft upon.

Granulation tissue is composed of two principal layers—a deep, rather dense layer in which the vessels are disposed horizontally to the surface, and a superficial, succulent layer made up of a network of capillaries, which are given off perpendicularly from the horizontal vessels of the deep layer. The superficial layer is the one which has most to do with subsequent cicatricial contraction; therefore THIERSCH advises that this layer be removed, by means of the curette, before placing the grafts.

In very old ulcers, where the floors are formed of dense cicatricial tissue, as in the case here reported, it is necessary to dissect out this tissue. Indeed, I am convinced that it is best in all methods of grafting to graft upon freshly denuded normal tissue, where practicable, as then there will be a minimum of contraction.

In 1893 Dr. H. HIRSCHBERG (*Verhandlungen der deutschen Gesellschaft für Chirurgie*, XXII, Kongress, 1893) published reports of cases of successful transportation of flaps with their subcutaneous adipose tissue for defects following the extirpation of tumors.

He used skin naturally rich in vascular supply, or induced an artificial hyperemia, by means of flagellation, before cutting the flap. He elevated the arm and made elastic constriction in the upper part, then whipped the outer part of the forearm with a kind of elastic cat-o'-nine-tails. A flap was cut out on three sides which, after shrinking, was sufficient to fill the defect. It was then lifted and sutures were inserted on the three sides and left hanging with their needles attached. The constriction was now removed from the arm. After a few moments the flap became turgid with blood, when it was quickly severed and transferred to the gap and sutured in place. A small opening was left at one or more corners for drainage of wound secretion.

Attempts have been made by a number of surgeons to graft from the stratum corneum of the epidermis, and success is claimed for the method.

One of the latest reports is that of Dr. C. B. KIBLER (*Railway Surgeon*, 1894, 126). He avers that "true skin was formed from the grafts."

The grafts are shaved from callosities, are almost as thin as tissue paper, about 1 mm. in diameter, and are to be placed right side up on the surface to be grafted.

*Read before the North Chicago Medical Society, February 24, 1896.

Skin from the lower animals has many times been used for grafting, and with apparent success.

Now as to the relative value of each method.

Reverdin's method is applicable in the case of defects of moderate size where cicatricial contraction is of little moment.

The modified Reverdin grafts—namely, those ranging from 0.5 to 2 ctm. in diameter and including nearly or quite the whole thickness of the skin—are applicable in almost any situation, and if placed in close apposition upon a normal fresh surface no cicatricial contraction will follow.

This method is open to the objections, that much time is consumed in repairing any but small defects; that each point from which a graft is taken becomes the seat of a scar, when taken from the living subject; and that seldom is there enough material available to cover more than a small surface at a time.

Wolfe's method is applicable in places where the vascular supply is abundant. It is most frequently employed for correction of deformities caused by burns, in which there is no opportunity to perform one of the ordinary plastic operations. It has the advantage over the preceding method that the defect is at once wholly covered. It is subject to the disadvantages, that much time and special skill are required in its application, and that, even should the flap live as a whole, parts are apt to slough. Moreover, the outer layers, at least, of the epidermis usually become detached in flakes of considerable size, for the first two to four weeks, so that the ultimate result is not attained as quickly as could be desired.

The method devised by Dr. FISCHER is applicable in all cases where the Wolfe method would do, and has the advantage over it that no sutures are required. For the past five years KRAUSE and others have employed this method for the repair of extensive defects where it seemed that the Thiersch grafts would not do as well. These strips are now implanted upon a freshened surface, instead of upon unbroken granulations.

Dr. Hirschberg's method of transplantation is adapted to cases of moderate sized, deep, and fresh defects; but its employment will be rather limited because of the time consumed, the somewhat difficult technique, and the uncertainty regarding the final result.

Grafting of the stratum corneum is, I believe, scarcely worth considering. The cells of the stratum corneum can have but feeble regenerative power, and must of necessity produce an epidermis of a low degree of stability—if, indeed, they produce any. I have tried the method but once, and then without success—possibly owing to faulty technique.

Grafting from the lower animals has never appeared to me to promise much. I think the transplanted skin acts merely as a protective covering and a framework for the cells of the underlying tissues to proliferate in. I do not believe it becomes transformed into true skin or epithelium. It is a well-known fact that when a large granulating sur-

face is kept in an aseptic condition and protected from irritation, a transformation often takes place in the superficial layers of cells, at a distance from any epithelial margin and where all epithelial appendages have been destroyed, whereby a horny layer is produced which closely resembles the stratum corneum of the epidermis.

It is not probable that the granulation-tissue cells become true epithelial cells, but that the connective tissue produced from them becomes cornified. This stratum corneum is not tough and resistant, but is better than none. Probably the grafts from lower animals aid in hastening the formation of this horny layer.

The Thiersch method of grafting is applicable in nearly all parts of the body that can be kept in an aseptic condition. It has most of the advantages possessed by other methods of grafting and few disadvantages. In common with other grafts the Thiersch grafts do not "take" well when applied to loose connective tissue, fascia, tendons, ligaments, periosteum, or cancellous bone; they do not even primarily adhere to compact bone. The Thiersch method may be employed wherever a covering of skin is required without a cushion of adipose tissue. The method is easy of application, susceptible of rapid execution, and certain in its results when intelligently carried out. The chief objection is that the donor must be anesthetized either locally or generally. In most cases this objection does not hold, as auto-transplantation usually gives the best results, and the patient to be grafted upon is nearly always anesthetized before the surface is prepared for the grafts.

Where the area to be covered is not large the part from which the grafts are to be obtained may be anesthetized by means of Schleich's infiltration method, the small amounts of cocaine and morphia present in the solution not interfering at all with the vitality of the grafts.

It is important to know whether true skin is formed on the site covered by Thiersch grafts. This question may be answered in the affirmative. It is well known that in many cases the new skin becomes, after a time, so freely movable that it can be lifted up in folds.

GOLDMAN ("Über das Schicksal der nach dem Verfahren von Thiersch verpflanzten Hautstückchen," *Beiträge zur Chirurgie*, XI, No. 1, p. 229) has carried out, at the surgical clinic of Professor KRASKE, in Freiburg, some investigations into the process of repair in Thiersch's method of transplantation. Four months after the operation he made sections through an area of skin grafted upon the neck, and found that the skin, which was freely movable, was abundantly supplied with elastic fibers. GARRÉ observed such fibers at the end of ten days. These fibers spring from the periphery and probably, in recent cases at least, the underlying tissue. There are no elastic fibers in scar tissue; therefore, when two grafts are separated by a granulating area, we find at this place a point of fixation.

The newly implanted skin is at first very thin, but regeneration takes place from the deepest and middle layers and it becomes thicker, its thickness depending largely upon the abundance of its nutritive supply. The new skin becomes tough and normally resistant after a few weeks or months, and, except in large defects, becomes endowed with normal sensibility. The nervous function returns first to the periphery. In the case of large defects it may be limited to the peripheral zone.

It seems almost superfluous to state that to insure good results in skin-transplantation the principles of aseptic surgery must be rigidly adhered to, not only in respect of the surface to be grafted upon, but, also, the part from which the grafts are to be taken. This should be shaved and as thoroughly disinfected as should the skin of the abdomen in preparation for celiotomy, though for the Thiersch method, especially, I would caution against violent scrubbing with the brush.

The following report is presented as illustrating some of the factors influencing success and failure in skin-transplantation:

THOS. P., Ishpeming, Mich., miner, aged 32, came under my observation first on Feb. 3, 1892. Three years previously, while residing in another part of Michigan, he had sustained a crushing and lacerating injury to the right arm, which caused sloughing of the skin and adiposa over a large surface.

His physician repeatedly urged amputation of the arm, but he would not consent. The granulating surface was subsequently grafted many times, but nearly all the grafts were lost.

When I first saw him the *status præsens* was: An ulcer 6 ctm. ($2\frac{1}{3}$ in.) in diameter, with its upper edge corresponding to the posterior surface of the olecranon process of the ulna; below this, on the forearm, 3 ulcers, each about half this size, and bathed in yellow pus, their floors being composed of cicatricial tissue dotted here and there about the borders with feeble granulations; the central three-fourths of the large ulcer of purplish granulations, and the remainder of it cicatricial tissue; the extremity encircled with cicatricial tissue from midway between the acromion and the point of insertion of the deltoid muscle down to about the lower third of the forearm. Also, a metastatic abscess in the axilla. The forearm flexed about 25° , and motion was limited to a radius of 25° from this point.

The ulcers were thoroughly scrubbed with boric-acid solution, then with strong alcohol, were dusted with iodoform, and a boric-acid wet dressing was applied. After seven days I commenced grafting the large ulcer and used 19 grafts about 1 ctm. (.39 in.) in diameter to cover it. Granulations would not form on the smaller ulcers, neither could the condensed tissue of their floors be curetted away. Upon incising it I found it was from 4 to 8 mm. thick, varying in different parts of the ulcers. After this was dissected off, the muscles bulged through the fenestræ to the level of the surrounding surface, showing they

were tremendously compressed. The isthmus of scar tissue separating two of the ulcers was divided, when the muscles bulged into the wound sufficiently to separate the edges of the incision 4.5 ctm. The floor of the excavation now consisted mostly of muscle covered by its sheath, but partly of aponeurosis and periosteum. It required 48 grafts 1 ctm. in diameter to cover this surface. Some were implanted upon freshly exposed muscle, others upon granulations and aponeurosis combined.

I now found there was so much constriction at the lower part of the forearm as to seriously interfere with the function of the muscles. An incision was therefore made on the inner surface directly downward, 6 ctm. from the lower margin of the grafted portion, cutting through the scar tissue to healthy muscle. The muscles bulged so as to produce a raw surface 3.5 ctm. wide at the upper part. Five days after this incision was made, and before any grafts were placed upon the resulting surface, erysipelas appeared in the parts of the arm not covered by dressings. Above the insertion of the deltoid muscle the arm was encircled by the inflammatory process, cicatricial tissue, only, being affected at first. At the wrist normal skin was affected, as the cicatrix was entirely covered with moist dressings. Twenty-five-per-cent. ichthyol ointment was applied to the contiguous parts, and the whole extremity was enveloped in wet boric-acid dressings, the grafted portions under their own separate dressings. In six days all traces of the erysipelas had disappeared. While yet there remained a trace of erysipelas at the upper part of the arm, I began grafting upon the forearm. Twenty-four grafts 1 ctm. in diameter were used to cover the triangular surface produced by the last incision.

I then made an irregular X-incision through the cicatrix above and in front of the elbow, with the object of permitting increased extension of the forearm, and to relieve constriction. The combined length of the two arms of the X was 37 ctm. The cicatrix at the bend of the elbow was 1.5 ctm. thick. It required 112 grafts 1 ctm. in diameter to cover the surface thus made.

The entire number of grafts used was 203, every one of which adhered and became vascularized. Sixty-eight were obtained from the patient, and 135 from other men. Here I may mention that hairs of various colors are still growing in the new skin.

All the grafts were placed with their margins in close apposition. During the entire period of grafting, the arm was kept in a wet boric-acid dressing covered with gutta-percha tissue. Afterward ointment composed of lanolin and vaselin was applied to the new skin. The man did not resume work until June, about two months after the last grafting, or four and a half after the beginning of treatment.

In the autumn of 1893 he did some coal-mining in Spring Valley, Ill., and in December of that year presented himself to me with an ulcer about the size of a twenty-five-cent piece in the cicatricial tissue, just over the tip of the olecranon process, which

had resisted good treatment for several weeks. The ulcer encroached very little, if any, upon the grafted area.

On December 13, at the Augustana Hospital, the patient was anesthetized with chloroform, the floor and margins of the ulcer were excised, and a flap of integument 6 ctm. wide, with its *panculus adiposus*, was sutured in place. The flap was obtained from the right ilio-lumbar region, and was left attached by a broad pedicle. On the ninth day I severed the pedicle, applied a moist boric-acid dressing, and did not touch it for four days. At this time sensation in the flap was good, and remained so, showing that new nervous connections are quickly formed in newly transplanted skin. He got on nicely for about a year.

February 1, 1895, he returned for further treatment. On examination I found the arm just above the elbow so much constricted, owing to cicatricial contraction, that it was impossible for him to use the arm muscles. He entered St. Joseph's Hospital, and on February 5 was anesthetized with chloroform and an incision down to muscle sheath was made from the tip of the olecranon process to a point just above the posterior border of the axilla, thence down the side of the thorax 30 ctm. A second incision was begun 3.5 ctm. from the first above the axilla, carried down the side of the thorax parallel with the first one, and the two were connected at the lower ends. The scar tissue on the arm, through which the incision was carried, was 0.5 ctm. thick and very dense. This was elevated from the underlying tissues for 1 ctm. on each side of the incision, then the flap, including the *panculus adiposus*, was lifted from the thorax and sutured in place on the arm. The margins of the thoracic wound were easily coaptated. Dry dressings were applied. The flap was so ruddy after it had been sutured in place that I felt certain it would live. I therefore did not remove the dressing for three days. This was a mistake, for I found it edematous and markedly suggillated, owing, apparently, to pressure at its upper third of a part of the gauze dressing, which had become saturated with blood and dried to the arm in such a manner as to impede the return circulation in the flap. Half of the flap was ultimately saved. It received little or no nourishment from the margins of the scar tissue, as portions of these margins sloughed owing to lack of vascular supply, resulting from their separation from the underlying tissues.

Half the flap was lost as a result of over-confidence on my part, for had I followed my usual custom in these cases and employed a moist dressing the constriction would not have occurred; or had I inspected the flap on the following day it would probably have been saved, as it did not die for several days.

On February 21 I dissected the granulation and scar tissue from the aponeurosis of the triceps muscle below the remaining portion of the flap. Then a flap 30 ctm. long by 5 wide was obtained from the back and sutured to the arm. About a third of the

flap sloughed, from tension produced by a suture. After seven days the pedicle was severed and the skin on the redundant portion was used to cover the denuded surface between the two flaps. The patient left the hospital one week after the grafting, and the case progressed favorably from this time on.

The *status præsens* in December, 1895, as reported by letter, was: Flaps firm and sensation in them as good as in any part of the arm. The grafted skin between the two flaps movable and sensation in it good. He says: "I can bend my elbow quite a bit more than I could when you first saw me. I could only with great difficulty reach my mouth. Now I can wash my face with that hand and reach the back of my neck, and also turn the hand up behind and reach my right shoulder-blade. In reaching straight out in front my right arm is about five inches short." In 1893 the patient sustained a fracture of the right wrist, which caused considerable shortening.

The points I would emphasize as suggested from a study of this case are these:

First. That the man's obstinacy in refusing amputation of the arm was the means of saving him a very useful member.

Second. That he could have been saved nearly three years of idleness, had he been given proper treatment from the beginning; namely, thorough antiseptic followed by aseptic treatment, and skin-grafting as soon as the wound could be made aseptic. The patient told me that the wound was so foul for many weeks as to make existence in the same house with him almost unbearable to others.

Third. That in order to obtain the best results in skin-transplantation it is necessary to graft upon a fresh surface free from granulation or scar tissue.

Fourth. That in skin-transplantation the surgeon should *in every case* attend vigilantly to details, both at the time of operation and in the after-care of the case, taking no unnecessary risks. In this case my over-confidence in the safety of one of the large flaps cost the patient several months' more time and an extra operation, not to mention my additional work.

Fifth. That it is inexcusable for the surgeon to lose a large percentage of grafts when he is grafting upon a part of the body which can be maintained in an aseptic condition.

Sixth. That there must be an absence of tension upon transplanted flaps.

Chicago; 307 Belden avenue.

Mixed Interpretation and Mixed Drinks.—An enterprising publishing-house has addressed a letter to the Brooklyn Board of Education, which brings out forcibly the ludicrous side of the Ainsworth Educational bill, which requires that children in the public schools shall be instructed in regard to the effects of alcoholic drinks. This firm offers to supply the city of Brooklyn, at the rate of \$30 a hundred, copies of a work entitled "The Bartender's Guide, or Fancy Drinks and How to Mix Them." This firm evidently believes that the intent of the bill is to teach children how also to prepare and to use alcohol.

REPORT OF A CASE OF STRANGULATED UMBILICAL HERNIA, WITH REMARKS *

By LOUIS FRANK, M.D.

Associated Professor of Obstetrics and Director in the Bacteriological Laboratory in the Kentucky School of Medicine; Obstetrician to the Kentucky School of Medicine Hospital; Gynecologist to the Louisville City Hospital, etc.

STRANGULATED umbilical hernia is not a very great rarity, still it occurs with sufficient infrequency to be of interest to the surgeon. Umbilical hernia, as we know, occurs both in the child and the adult—those occurring in children being due to imperfect closure of the umbilical vessels, the hernial protrusion being through the still patulous openings. This form of hernia may also occur during fetal life, and the intestine has been severed in cutting the cord in such cases. When occurring in adult life, we find it almost exclusively in the female, and in those only who have borne children, the cause here being distension of the abdomen due to the enlarged, pregnant uterus.

The contents of these hernial sacs may vary, just as in any other hernia. The ring is usually of such size that strangulation does not occur. Quite a number of cases of strangulated umbilical hernia have been reported, but in a rather hurried review of the subject I have been unable so far to find the detailed report of a single case. We find in those herniæ that are congenital, or occur in early life, that often the omental contents (there being, I believe, almost always omentum in the sac in these cases) are adherent. This may also occur in those herniæ which develop later. The ring is of such size that strangulation of either the intestinal or omental contents seldom takes place. We at times, and possibly frequently, have incarcerations which are relieved. These incarcerations, and the same is also true of those herniæ which become strangulated, take place where the contents are as a rule adherent. When strangulation occurs we find that gangrene takes place very rapidly, though why this should be true in this class of hernia more than in any other I fail to see.

In operating upon these strangulated cases we are sometimes confronted with very difficult problems, the chief of these being, What shall we do with the strangulated gut? It is almost impossible to establish an artificial anus, the nature of the bowel contents being such that our patient would necessarily starve to death.

It has been my fortune—hardly a good one—to recently meet with a case of strangulated umbilical hernia. I know of no surgical emergency which could have been worse; though I anticipated strangulation and considerable trouble, I am free to confess that I did not look for the condition which was found. The smaller loop of intestine at the time of its removal was about fifteen to eighteen inches in length, the longer loop being fully 30 inches in length.

Case.—I was called by Dr. HERMANN, of this city,

to see a case which he said might require an operation. I found the patient, a woman, aged 52 years, with a tumor almost as large as a water-bucket, presenting more to the right of the median line, in the region of the umbilicus. She had always been troubled with this rupture. It had at times become incarcerated, but had always been reduced almost entirely after taxis and after morphia or chloroform. She had worn an abdominal binder, which, however, did not retain the sac contents within the abdominal cavity. The patient was a large woman—very fat (and it is in this class of women that we always find this form of hernia). She had had five or six children, and had been all her life actively engaged in household duties. About nine o'clock of the morning on which I saw her, the hernia had become fixed and had given rise to some pain. She attempted, by the plan which she had usually employed herself, viz., hot applications and postural treatment with gentle manipulation, to reduce the hernia. She was unable to do this, though she persisted, and unfortunately for her, I think, to manipulate the tumor for several hours. She finally began to vomit, and vomited repeatedly and incessantly. The pain increased in intensity, she grew rapidly worse, and, becoming alarmed, the family sent for Dr. HERMANN. He recognized the condition at once, and gave her chloroform, attempting by gentle taxis to reduce the hernia.

I advised immediate operation, telling her of the great danger of delay in this class of cases. Her pulse was good; there was possibly not more than one-fifth to two-fifths of a degree of elevation of temperature. There was no shock whatever, and I believed that an operation at that time would save her life. It certainly was indicated, and the only thing that could be done. Operation, however, was refused, and after administering one-half grn. of morphine hypodermatically I left her. The next morning at 9 o'clock I was called up by telephone, and informed that if I would make arrangements she would go at once to the infirmary. This I did, and about 12 o'clock she came into the infirmary, and at 12:30 we had begun the operation.

Operation.—I had not seen her since the night before, about 11 o'clock, and at that time the skin covering the tumor was somewhat red, but not more than we should expect from continued hot applications. After placing her upon the operating table I found that the integument covering the sac was now of a greenish color; in fact, it was gangrenous. With all haste possible, at the same time exercising the greatest care, an incision was made directly over the most prominent portion of the tumor well down upon the abdomen below and also above. The sac was opened by continuing the same incision, and two very greatly distended coils of intestine sprang into view. Considerable dark-reddish, foul-smelling fluid escaped. The contents were markedly gangrenous. Going rapidly down the neck of the sac was nicked below and also above, but instead of being able to reduce the

* Read before the Louisville Surgical Society.

hernia it was almost impossible to retain the balance of the intestines within the abdominal cavity. The ring was enlarged by incision both above and below, and it was at once evident that nothing else could be done except a resection. The coils of intestine, there being two, were of such length that we feared, almost, to attempt this procedure, but, recognizing that the woman could not possibly get well any other way, resection was carried out. The method employed was that of Wölfler, catgut being used as suture material; the smaller specimen being resected first, then the larger one. In resecting the larger portion it was found that one end of the intestine was decidedly larger than the other; in fact, the upper portion being almost at the pyloric end of the stomach. After cutting away all gangrenous intestine and mesentery and uniting and reducing the intestines, which was found a very difficult matter, the sac was closed along with the greater portion of the wound, including the fascia and muscle, by silkworm-gut sutures. The gangrenous hernial sac was now dissected out with its adherent omentum, the gangrenous integument cut away, and the skin closed by silkworm-gut sutures, the cavity having been previously packed with iodoform gauze. A drainage-tube was inserted at the upper angle of the wound, and the patient put to bed with a pulse that was almost imperceptible, she having been on the table almost two hours. Strychnine had been constantly given hypodermatically, as well as whisky.

Results.—The pulse gradually improved, and in the evening of the day of operation was only 90. She felt perfectly easy, no pain, and there was only a small amount of sanguineous fluid brought away by aspiration of the tube. There was no fecal odor to this aspirated fluid. She was in fairly good condition the next morning—pulse, 108; temperature, 99 F. She remained in about the same condition until evening of the same day, when the pulse gradually began increasing in rapidity, and she died at 2 o'clock the next morning, having lived 36 hours after the operation. A post-mortem was asked for, and all pressure brought to bear that was possible, but was persistently refused. Notwithstanding I was unable to see the result of the intestinal anastomosis, and cannot positively say that the sutures held, or that there was no leakage, I am inclined to believe that there had been no fecal extravasation, as there was entire absence of any fecal odor whatsoever. At no time did the aspirated fluid have the faintest odor to it. There was never any nausea or vomiting after the operation.

Remarks.—I was exceedingly interested in getting specimens of the intestine by post-mortem examination to see the exact result of this suturing, but, as stated, was unable to do so. In several cases upon which I have operated experimentally, in dogs, I have found that my sutures pulled out when catgut was used as suture material. In those cases where silk was used the sutures held, though some of the dogs also died of septic peritonitis.

A few words as to the best method of intestinal

anastomosis to be employed in these cases. Personally I do not approve of any mechanical devices where it is possible to avoid their use, and in the vast majority of cases this can be done. Direct end-to-end or lateral anastomosis can be done without the use of plates or any such devices; and those ingenious contrivances, mechanical in character, such as the Murphy button, Ramaugé's ring, etc., which act by producing gangrene of the intestine, I certainly do not think are advisable. The many objections which have been argued against, as well as points in favor of, these contrivances are too well known to you to require repetition. I wish, however, in this connection to show you a ring gotten up by one of our local surgeons, Dr. J. T. DUNN, which we have used upon dogs with very fair success so far as its application goes.

Of the various methods of suturing, the Wölfler, in my opinion, is to be preferred. It is more rapid, less complicated, and absence of leakage is more certain than by any other method.

As to material to be used in suturing: As before stated, I have found in many instances that catgut pulled out. I believe this to have been due to two things, which should be guarded against: first, tying the sutures too tightly; secondly, placing them too close to the margin of the gut. It is better to trim away some of the convex margin of the gut and then go back wide of this. If the suture holds for 36 hours, success is fairly assured so far as any trouble from leakage may be concerned.

I have always been afraid to use catgut in my abdominal work, although I have tried it several times, always, however, with like result—viz., supuration. In one dog upon which I did a resection with recovery, after killing the animal there was found pus encysted between two folds of mesentery. The catgut which I used in the hernia case above reported is what is known as the immaculate catgut, made according to BISSELL's formula by J. ELLWOOD LEE. I have since tried this gut in other cases and have found it to be absolutely aseptic. It is the one form of catgut which I have used without subsequent trouble.

The subsequent study of intestinal anastomosis is also very instructive. For instance, in one of my experimental cases my animal died after eight weeks of obstruction, due to the non-absorption of that portion of the gut which was turned in, this remaining as a distinct collar or valve around the entire lumen of the gut. The lumen of the intestine was not only smaller, but the intestinal wall itself was also thinner below this point than it was above. In one case in which the Murphy button was used it was almost impossible to discover the cicatrix; and I must say that, although I am not very greatly in favor of using any button, this specimen presented the nearest approach to normal gut of any I had seen. Upon microscopical section through the cicatrix we found an almost perfect union of the external muscular layer, with only a slight break in the internal muscular coat in that specimen where we operated

by use of the button. In the others union of the muscular layers seemed to be not so perfect.

The microscopical sections shown, and the drawings made from them, were prepared by Dr. BULLITT, to whom I express my thanks for the privilege of exhibiting them this evening in connection with this paper. In conclusion, I desire to express my thanks to my friend Dr. VANCE for the valuable assistance he rendered in the operation upon the case I have reported.

Louisville, Ky.

CONGENITAL DISLOCATION OF THE HIP; WITH PRESENTATION OF A CASE CURED*

By T. HALSTED MYERS, M.D.

THIS subject has been exciting more attention among orthopedic surgeons than almost any other for the last two or three years. When HOFFA, of Würzburg, introduced the operation known by his name, it was taken up eagerly in Germany, France, and in this country. After a time the reports began to be less favorable, and failures and deaths were recorded; so that at the present time the general feeling in this country seems to be against the operation. A brief *résumé* would, therefore, seem proper at this time to determine whether this conservative feeling is well founded or not.

I will not enter into a discussion of the etiology or pathology of this deformity more than to mention the two most popular views—the one that the dislocation is the result of a traumatism received at birth; the other, that it is the result of maldevelopment of the acetabulum and head of the femur. Our knowledge of the exact conditions present has been greatly increased in consequence of the large number of operations which have been done of late, exposing freely to view all the parts involved. There seems to be two general classes of cases. In the first the acetabulum and head of the femur are well formed; in the second, both are more or less rudimentary. The secondary changes which occur when the child begins to walk have also been well demonstrated. I call attention to the latter fact because of its bearing on the prognosis, as all authorities agree that the earlier treatment is begun the better the result will be.

While these cases are common enough in the large metropolitan orthopedic clinics, they are seldom seen elsewhere; and it is not surprising that many are not diagnosed at once, and so treatment is delayed and valuable time lost. The striking diagnostic features of these cases are the telescoping of the joint, the shortening, the prominence of the trochanter, the lordosis and marked limp when the child walks. In the great majority the head of the femur is upon the dorsum of the ilium, but there is not the limitation of motion and malposition of the limb usual in traumatic dislocations. There is, however, a little limitation to abduction and outward rotation. In a series

of 128 cases, which I have lately investigated, there was pain in about one-third. Sometimes it was severe, and lasted several months; generally it disappeared after a few days' rest in bed. These attacks of pain were common during the period of rapid growth, especially in girls from eleven to fourteen years of age. In many cases there was a spinal curvature, but this was due almost always to the short limb, and was easily corrected. The lordosis, however, was always a marked feature. The shortening pretty steadily increased with the age, as we should expect; between one and two years it was $\frac{3}{4}$ in., while between thirteen and fourteen it was about 2 in. Three or even four inches shortening is not uncommon in older cases. Many cases are reported in which the limbs have become so markedly flexed and adducted that the patients have been unable to get about with any comfort. None of the cases I have seen, however, have been crippled to this degree.

Until recent years, although a good result was occasionally recorded when all the surrounding conditions had been most favorable, the prognosis generally was too poor to make either surgeon or parents undertake a course of treatment without great reluctance. Thus it happened that when the children had pain in the joint they would be directed to wear some supporting splint for a time, or go to bed, or use crutches until the pain disappeared. If the limp was marked, a high sole was usually ordered for the short limb.

HOFFA and LORENZ have, however, lately devised reasonable methods of reducing the dislocation by opening the joint and deepening the acetabulum. On the other hand PACI and SCHEDE have developed purely mechanical methods from which good results are reported.

HOFFA opens the joint posteriorly by Langenbeck's incision; divides the capsule at its insertion into the neck of the femur; frees the great trochanter, subperiosteally, from all the muscles attached to it; forces the head of the femur out of the wound; extirpates the ligamentum teres, and scrapes out the acetabulum so that it will contain the head of the femur easily. Reduction is then accomplished without difficulty. The superfluous part of the capsule is excised, the wound packed with iodoform gauze, and the limb immobilized in an abducted position. In children over six years of age it may be necessary also to divide the biceps, semi-membranosus and semi-tendinosus, the adductors, and the muscles attached to the anterior superior spine.

LORENZ lays great stress upon the importance of sparing all the muscles controlling motion at the hip, as he believes that the ultimate result as to the function and solidity of the joint depends upon the amount of muscular power preserved. He varies his operative procedures according to the age of the patient, and divides the cases into three general classes, briefly, as follows: 1. The simplest cases, from three to five years of age. An assistant grasps the limb above the knee and draws it downward and into a slightly abducted position with a

* Read at the Annual Meeting of the New York State Medical Society at Albany, January 29, 1896.

good deal of force, but without counter-pressure at the perineum. Then an incision 6-8 ctm. long is made through the skin from the ant. sup. spine of the ilium along the outer edge of the tens. vag. fem. downward and outward. The fascia lata is then divided in the same line. The anterior edge of the gluteus medius is drawn outward; the tens. vag. fem., with sartorius and rectus, is drawn inward. A transverse division of the fascia lata from the wound outward liberates the gluteus maximus and makes the pulling down of the head of the femur to the level of the acetabulum possible by pretty powerful extension. The capsule is then opened by a crucial incision, the acetabulum scooped out with a sharp spoon, taking care to preserve the upper and posterior borders especially, and the head of the femur is replaced. In severer cases, Class 2, six or eight years old, the muscles must be spared, although there is greater difficulty in pulling the head down to the level of the acetabulum, and in holding it there. LORENZ has employed, in order to overcome this shortening, a skein of worsted fastened to the leg; two assistants exert strong traction on its ends, while counter-extension is made against the perineum. When the capsule has been split, the reduction is not generally difficult. In some cases LORENZ used with advantage a screw-extension apparatus fastened to the end of the operating-table. This force was exerted always very gradually, and succeeded even in severe cases, and so made section of the muscles unnecessary. In children 9 to 12 years of age, Class 3, with great shortening and but little telescoping, a preparatory extension treatment was necessary. The weight employed was about thirty pounds, and the treatment need not be continued more than two weeks. The effect of this extension was not very evident in some cases, and the main work had to be done at the operation by the extension screw. LORENZ, even in most difficult cases, succeeded thus in avoiding division of the muscles.

After the head has been brought down, the capsule is opened by a crucial incision, one arm reaching from the anterior inferior spine to the middle of the anterior intertrochanteric line, the other from the inner edge of the acetabulum to the top of the head. The lig. teres, if present, is removed by forceps and curved scissors. The rudimentary acetabulum must next be correctly located by sense of touch. The sharp spoon is guided by the left forefinger, and the act of deepening the acetabulum is not difficult. LORENZ uses for this purpose strong, sharp spoons of different sizes, which have the spoon set at an angle with the handle. He prefers these to the bayonet spoons of HOFFA. The difficulty which tests the skill of the operator most lies in excavating an acetabulum which will fit well the head of the femur, whatever its shape may be. The head should now have no inclination to leave its new position when the limb is extended or even slightly adducted. Since the hemorrhage is considerable, the operation should be

done as quickly as possible. In young children and simple conditions LORENZ often completes the operation in ten or fifteen minutes.

In the after-treatment LORENZ limits the period of absolute rest of the joint as much as possible. In five or six days the children will, as a rule, get out of bed part of the time. By means of a stirrup fastened to the lower end of the fixation bandage the child can get about with help a few days after the operation. On the tenth day the fixation splint is renewed. In the second or third week standing and walking exercises are begun. In four weeks the fixation bandage is entirely removed, and massage is begun with active and passive flexion, extension, and abduction movements. In six weeks the children may stand alone. LORENZ has given up the use of supporting apparatus in the after-treatment. Secondary flexion and adduction are guarded against by active and passive extension and abduction movements.

The best results are obtained in children under ten years of age, but if the head is not deformed the operation is applicable to adults. LORENZ operated upon one patient 20 years old. A perfect result cannot be attained. Owing to the defective development of the limb there will always be some little shortening. A limp generally remains, though it is no longer the characteristic one which is so disfiguring. This depends upon the imperfect muscular fixation and control of the joint. The results improve as the parts accommodate themselves to each other.

Both HOFFA and LORENZ advise now against any attempt to reduce the dislocation without opening the capsule and deepening the acetabulum, as otherwise these cases, they found, would relapse.

PACI's method of treatment consists in forcibly manipulating the limb as if to reduce a traumatic dislocation; that is, the limb is first forcibly flexed as far as possible, then abducted, then rotated outward, then extended. Afterward the thigh is held completely extended and immobilized, and traction is applied. If the shortening is not completely overcome at the first operation a subsequent one will probably accomplish the reduction.

In about two months the plaster-of-paris splint is removed and an extension apparatus applied. About four months after the operation the patient is allowed to get up and walk with crutches. At night extension is reapplied. The limb is massaged twice daily, and once a day receives electrical treatment.

SCHEDE's method is similar. He overcomes the shortening by traction, and reduces the dislocation by manipulations. He then applies a splint adapted to exert direct lateral pressure inward against the trochanter; it also keeps the limb abducted during walking. Not one step should be taken without this protection. The treatment has to be continued from one to five or six years. At night an extension of five pounds should be worn.

BRODHURST reports this month on 52 cases. He reduces the shortening by traction, or, if necessary, by

subcutaneous section of the adductor magnus and the muscles inserted into the trochanter major. He also says that when the acetabulum is so filled up that it is impossible for the head to be replaced, he removes, with a gouge made for the purpose, all that he can scrape away subcutaneously. He has never done the open operations of HOFFA or LORENZ, but has never had any difficulty in employing his gouge subcutaneously. After this operation he has noted a slight tendency to ankylosis. He reports no deaths.

MIKULITZ claims that before the child walks the head and acetabulum are practically normal, and that even after this, although the capsule may be shrunk in the middle, or the opening of the acetabulum too small for the head, both these difficulties can be overcome by continuous firm pressure applied over the trochanters. The same pressure, he claims, will adapt the head to the acetabulum, and will cause any hypertrophy of the lig. teres to disappear. He maintains in his treatment extension, abduction, and rotation outward of the limb for ten or twelve hours a day. During the rest of the day the patients wear a corset exerting some pressure on the trochanters.

As to the danger of the different methods: There is none at all, of course, in the mechanical methods or in Paci's manipulations.

I have notes on 301 cases of Hoffa's operation or some of its modifications, and among these are 11 deaths which were due directly to the operation. The mortality is therefore between 3 and 4 per cent.

From a study of the cause of death it becomes at once apparent that sepsis is the most important factor. Eight of the 11 died from this cause. Two died from shock, and one from iodoform intoxication and shock.

The extent of bone surface laid bare, the liability of blood-clot formation at the bottom of the wound, from the poor drainage, the amount of manipulation necessary, and the location of the wound—all tend to make primary and secondary infection easy. All the writers ascribe most of their failures to this cause, and the operation should never be undertaken unless perfect asepsis can be assured.

The ultimate results of the operative measures—HOFFA showed a case of bilateral dislocation operated upon over three years before. There had been no relapse. There was no waddling gait; the joints were sound and showed very good motion. The child ran about all day without pain or fatigue.

He presented two other unilateral cases which showed firm joints and good motion—one, a girl of 8 years, operated upon 3 years previously; the other, $2\frac{1}{4}$ years old, operated upon 1 year previously.

He said, "In all my other cases, equally favorable results were obtained after operations made in the manner recommended."

Reports from other surgeons are not so favorable.

LORENZ, however, is also very enthusiastic about his operation. He considers three to four years the most favorable age for operating, and does not like to

operate after seven years. There are distortions of the head and neck which contra-indicate operation, but these can be diagnosed before an operation is attempted. He had an uninterrupted series of bad results and two deaths while working in ALBERT'S clinic, but when he secured aseptic surroundings and technique he operated 100 times without a death, and with but one small stitch abscess. In these cases he had: Once ankylosis, three times marked limitation of motion in the joint, twice posterior dislocation recurred, and eleven times relaxation forward under the ant. sup. spine. The latter results he ascribed to anteversion of the neck of the femur.

BROCA also had no death in his last 22 cases, and thought his statistics proved clearly that the operation, properly conducted by a surgeon and assistant equally experienced, is not really dangerous.

He had 12 cases which had been operated upon for two years. One case had relapsed. One case became ankylosed. In three cases he performed osteotomy to correct flexion. Flexion and abduction were usually not perfectly free. Two cases walked without any limp whatever. The others are "considerably improved." They limp more or less, but they walk, play, and run all day, in marked contrast to their condition before operation. They no longer have attacks of pain in the joint. In brief, the ultimate results he considers good.

BRODHURST claims excellent and permanent results from his operations.

The results of non-operative methods are much better, also, than they formerly were.

PACI reported on fifteen cases, and they were almost perfect a year or more after the operation. He said REDARD, NOTA, and others had examined some of his cases, and were greatly pleased with the results he had obtained. On the other hand, KIRMISSON reports seeing a case said to have been reduced in this way, but he thought it was not reduced. The head of the femur was above, not in, the acetabulum. The functional result, however, was good. PACI obtains his reduction at once, and this is a very great advantage, and at once makes this treatment possible in hospital and dispensary practice, whereas the old method of long-continued extension is impracticable. The traumatism inflicted also seems to the writer to be distinctly beneficial in tending to excite an inflammatory exudate, and so helps to secure the head in the acetabulum.

I have seen no reports from PACI lately, but AMBROSIS (*La Riforma med.*, 1894, X, pt. 4, 52-58) reports three cases of congenital dislocation of the hip, which he had cured by PACI's method.

SCHEDE reports on 45 cases treated by his method. Four of these are absolutely cured. Eleven are almost cured. Fourteen are slightly improved, but the majority of them will have good results. Eight cases, however, have been failures, and eight cases have been lost sight of. He calls especial attention to the importance of early diagnosis.

MIKULICZ reports five cases. Three of these have

been entirely cured by his method in 12, 17, and 18 months. The children were 1, $3\frac{1}{2}$, and $4\frac{1}{2}$ years old. Two others were improved, but not cured.

The treatment to be adopted will depend a good deal upon the age of the patient when applying for treatment. Of my 128 cases, 9 were between 1 and 2 years, and 25 more between 2 and 3 years of age when first seen, and 102 were under 10 years old.

HOFFA says his operation should not be done on patients over 10 years old. LORENZ has operated upon a girl 20 years old, but advises early interference. KIRMISSON considers the best age between 4 and 6 years. PACI's and SCHEDE's methods may be applied a few days even after birth, the earlier the better. PACI has also reported good results from children in their teens.

In old cases, with severe and disabling deformities, Kirrison's method of subtrochanteric osteotomy seems to benefit the patients considerably, and without risk.

As far as I know, every case treated in this country by the older method of continuous extension and walking apparatus sooner or later relapsed after the apparatus was removed. The cases here mentioned of PACI, SCHEDE, MIKULITZ, and BRODHURST are therefore very encouraging. With an early diagnosis, the reposition can be readily accomplished, and a good result is more than probable, if there is careful mechanical treatment for a year or more.

Where this treatment has failed after a fair trial, or in older cases with marked secondary changes, it seems to me Lorenz's operation is indicated, and is a safe procedure *if the operator is skillful and does thoroughly aseptic work*. This operation offers a very good chance for curing this serious deformity. Even where it has failed to cure, the relaxation was in most cases not backward, but upward under the ant. sup. spine, which is a position of much greater stability than the original one, and this is a point of great importance, since the limp in these cases depends as much on the telescoping of the joint at each step as upon the actual shortening of the limb. I may add, this position may also be gained by mechanical means alone.

When we consider that these cases will certainly become more and more deformed and lame as they grow older, that almost one-third of them will have repeated attacks of pain and disability, and that many cases are reported where the patients are rendered helpless by the flexion and adduction of their limbs due to this dislocation, it seems to me it is high time we should attempt their cure by some of the methods mentioned, and stop sending them away untreated as incurable.

I wish to present this little girl to you to-day to illustrate this paper. Her history is as follows: There have been no deformities in the family. The labor was difficult, but nothing abnormal was noted until the child began to walk, when she was noticed to limp, and this has gradually increased. She was referred to me by Dr. WM. H. SHERMAN for treatment in February, 1895. She was then $3\frac{1}{2}$ years of

age. At that time the shortening was $1\frac{1}{2}$ in. All the symptoms of congenital dislocation of the hip were present; the telescoping, lordosis, and limp being especially marked. She was sent to St. John's Riverside Hospital at Yonkers, and ether was given and reduction accomplished by Paci's manipulations. A good deal of force was used intentionally in order to invite an inflammatory adhesion of the head to the acetabulum. The limb was then abducted 30° and immobilized with a plaster-of-paris spica. No extension was made, as it seemed to me that if at the time of operation the muscular shortening is entirely overcome, the indication is to allow the head to remain firmly in the acetabulum after placing it there, rather than to pull it partially out again by traction and so encourage relaxation. The spica was changed several times until July, when the walking-brace she now wears was applied, and she was allowed to go about freely up and down stairs, etc.

This splint exerts pressure against the trochanter, and at the same time holds the limb constantly abducted. To aid in maintaining this abduction she wears a high shoe on the sound side. Perineal straps relieve the joint of part of the weight of the body. Motion is allowed at the hip, knee, and ankle.

To-day the shortening is $\frac{1}{4}$ in. The head is firmly in the acetabulum. There is no telescoping, no pain, no lordosis. The child walks, when the apparatus is removed, with a "splint" walk, since she has only been allowed to walk without any support for five weeks, and then only a part of each day. This result would be considered a most excellent one if it had followed a Hoffa or Lorenz operation, and could not have been accomplished without the careful attention to the details of the after-treatment afforded me by the staff of the hospital.

New York; 24 West Fiftieth street.

About Nurses.—While many trained nurses possess the disagreeable and objectionable qualifications which one of our contemporaries dwells upon, the average nurse does not deserve the strictures cast upon her. There are many black sheep, gossips, untidy ones, and even careless ones among the many nurses in this city, but, as a rule, they are fairly well trained, mind their business, obey orders, and keep themselves cleanly in accordance with surgical dictates. If there is one fault above others which may be laid on their shoulders it is the unwillingness they display to lower their rates even though for the time they have nothing to do and the physician represents to them that the circumstances of the particular family do not warrant the full charge from them, even as he himself is obliged to make a reduction. What every community needs is a large number of nurses who will be willing to serve for, say, \$12 a week among the large proportion of the population to whom the charge of \$25 is prohibitive. Certainly this entails little hardship where the character of the sickness is not such as to demand the nursing night and day of a critical or a surgical case. We look forward to the fulfillment of the promises made recently by a number of the laity and of the profession who opened a school for instruction with the above end in view.

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PUERPERAL SEPSIS.—At a recent meeting of the Baltimore Gynecological and Obstetrical Society, the full report of which may be found in the February number of the *American Journal of Obstetrics*, Dr. J. W. WILLIAMS showed some specimens illustrating the various forms of puerperal sepsis, which are most valuable as adding to our knowledge of the complex types after which sepsis may show itself. These specimens go far toward proving that the most fatal types of sepsis and those associated with the highest mortality are characterized by the presence of the streptococcus, while the staphylococcus is rarely found. Speaking from a bacteriological standpoint, WILLIAMS has found that where the streptococcus is present we are dealing with something more than an endometritis; that is to say, the disease process extends, and this, too, rapidly, beyond the uterus. This organism tends very rapidly to travel beyond the uterine decidua, through the uterine wall, and into the peritoneal cavity. This is very different from that which occurs in instances of putrid infection. The growth of the organisms is then limited to the decidua. Thence the corollary, so often dwelt upon, that it is in the latter class of cases that curetting can be expected to be of value. A thorough and a speedy removal of the decidua in putrid infection in

the vast majority of cases arrests within a short time the septic infection. On the other hand, when the condition is not one of putrid infection, no amount of curetting can effect good. On examination of the interior of the uterus in suspected cases,—something which should ever precede the insertion of the curette in case of putrid infection,—either a mass will be found in the cavity or else the endometrium will be roughened; while, in case nothing of a putrid character be found in the organ, or if the endometrium is smooth, we are dealing with a pus organism which has already invaded the uterine wall, and possibly reached the peritoneal cavity. WILLIAMS'S researches, further, cause him to maintain that infection rarely extends to the peritoneal cavity by extension through the fallopian tubes, but that ordinarily the streptococci and the staphylococci travel through the walls of the uterus. Often these organisms stop short of the peritoneal cavity, and produce thrombosis of the veins of the uterus, whence secondary deposits reach the system, giving rise to pyemia.

A further valuable point laid stress upon, and one which it seems difficult to impress upon the general practitioner, is the danger of using bichloride of mercury as the material for washing out the uterus. WILLIAMS has found over forty cases on record where death could be distinctly traced to the use of this agent for uterine irrigation. In many of the cases the solution was not used in greater strength than 1 in 10,000. Further, remembering that the streptococci are not limited to the interior of the uterus, but extend within its walls, the futility of uterine irrigation in such cases is at once apparent.

WILLIAMS concludes his report with the following words, which may well be weighed by many who are advocating rather radical procedures in case of puerperal sepsis: "Of late years a great deal has been said of the treatment of this affection by operation, and some have advocated the extirpation of the tubes, ovaries, etc., for the cure of this trouble. But the results, so far as I have been able to learn, have not been good. I believe that the vast majority of cases that have become well would have done so anyway. They were, I think, women with putrid endometritis. Where the invasion has traveled through the uterine wall, the case appears to be hopeless; and the only class of cases where I consider operative treatment of any value is where the process is necrotic."

This statement, while true in the concrete, might well be modified by saying that such would seem correct at the present day; but certainly, for the glory of gynecology, let us hope that at a date,

possibly not so very remote, we shall be enabled to recognize even cases of streptococcus invasion early enough to warrant us in resorting to extirpation of the uterus and the appendages before the germs have extended beyond our surgery. It is very firmly established that no woman, unfortunate enough to be suffering from putrid infection, should die if the process be arrested early, and after the radical fashion which has been adopted by almost all men of repute. Cannot we hope that, where the pus-producing organism gains entrance as, notwithstanding all our care, it still does at times to-day, the future may reveal to us some early sign of its presence, whereby most radical measures will result in the saving of life, even though it be at the expense of uterus and tubes and ovaries?

HIGHER MEDICAL EDUCATION.—The Nussbaum law, which provides, on and after the first of January, 1898, for a four-years course of study, will meet the approbation of all medical men. Indeed, it will fall short alone of satisfying those medical schools which, from obviously selfish motives, have ever been opposed to raising their standards and their requirements. It is possible that some of the schools may be forced to go out of the business of reaping fees from the many medical students they can attract so long as it is easier to be graduated at them than at institutions where the aim and intent is rather to make good and thoroughly trained physicians than to add to the bank accounts of the incorporators of the school. If such should be the outcome, the State of New York will be open to congratulation, for we already have an abundance of schools for medical instruction, organized and supported in the interest of the higher medical education, and can afford to allow a number of one-horse schools to go to the wall.

THE CONFIDENTIAL RELATION EXISTING BETWEEN PHYSICIAN AND PATIENT.—In our last issue we referred to the fact that a distinguished English obstetrician had been heavily mulcted in a law court for revealing a professional secret. We did not mention the physician by name, because, in the absence of positive knowledge, we were loath to believe that a man whose name had deservedly become a household one all over the civilized world had been guilty of the indecent and unprofessional act which the lay press reported. Later advices, however, prove that the evidence given to a jury was sufficient to cause the name of Dr. PLAYFAIR to be held up to the reprobation of his professional

brethren; for he has been adjudged guilty of an act which, in the United States of America at least, is sufficient to ostracise a professional man.

The saddest part of the matter, to our thinking, is that, if we are to judge from the opinions expressed by Dr. PLAYFAIR's colleagues, it is not deemed unprofessional in England to reveal to another a secret which a patient has intrusted to us in the line of our professional work, or knowledge which we have acquired in the course of our physical examination. It seems to us that medical men in a country which could give birth to a gentleman who, a number of years ago, when a guest of the profession here, found so much of an unethical nature among us, should be more careful than, from the testimony given on this trial, we are led to assume they are. To us it seems an unpardonable sin to reveal, to anyone, information we may have acquired in the course of our attendance on a patient, whether man or woman; all the more so when, as in the case we are referring to, such knowledge is of a nature to reflect on the chastity of the patient. So strong is this belief among the members of the medical profession in this country that we do not question but that, rather than be guilty of such an unprofessional act, the average medical man would go to jail and there remain, were such to be the alternative of refusal to reveal professional confidences. If the patient cannot rely on the inviolability of confidences reposed in her medical attendant—confidences necessary in order to enable him to give an opinion—where in the world is the patient to go for advice in case of illness, whether mental or physical? Were not professional confidence considered inviolate, how many homes could to-day be ruined? How many reputations could be blasted?

We must confess that, from the testimony, we can find no shadow of excuse for the act of Dr. PLAYFAIR, and this we say with reluctance, because of personal knowledge of the man and deep interest in one who has done so much toward advancing the science and the art of obstetrics. It matters not to us that the patient was a member of Dr. PLAYFAIR's family. To him she was simply a *patient*; and if he discovered anything reflecting on her chastity it was his duty to hold the knowledge sacred even as though she had held no relationship to him. If a medical man will attend and give advice to members of his family, it is in the capacity of *physician* and not in the capacity of *relative*. Indeed, the very fact of relationship, if it is to carry any weight at all, should make him more circumspect in repeating anything which he learns. We

disagree absolutely with one of our foreign contemporaries in the statement, "Dr. PLAYFAIR had to balance the grand traditions of medical confidence against the duties between relative and relative." On the contrary, we hold that he was unworthy of rendering aid from a professional standpoint to his relative if he did not feel that his duty from the same standpoint was as sacred as though his patient had been a perfect stranger.

There should be no room for gossips in the medical profession, and we hope that, every time a medical man is guilty of revealing professional confidence, he will not alone suffer from a pecuniary standpoint, but that, as we stated in our last issue, his colleagues will ostracise him and the laity will beware of him.

WIDE CIRCULATION OF THE MEDICAL PRESS.—The penetrating power of the circulation rays of certain of our very esteemed contemporaries is even so great as to carry into the desert of Sahara. Doubtless the inhabitants of this trackless waste appreciate the compliment and the enterprise, and the BULLETIN wishes to offer its hearty congratulation to those who aim at instructing even the nomads of the desert and perhaps the inhabitants of the North and South poles. The BULLETIN will carefully consider the desirability of entering into scientific competition in these hitherto unexplored regions, so far at least as medical journalism is concerned; indeed, the BULLETIN, in an early issue, may deem it wise to give its readers and its competitors information how even to circulate among the inhabitants of Mars. In view of the report that a distinguished electrician has about completed arrangements to telegraph toward the Martial realm, our subscribers will not be surprised to learn that their favorite journal, in advance of its competitors, is effecting arrangements for extending its circulation in the same direction.

THE COMMUNITY, THE CORONERS, AND THE COMMITTEE OF THE LEGISLATURE.—The prospect is slim that during the present session of the Legislature the present coroner system will be wiped out. Apparently the coroners and the political heelers are stronger with the committee before which the bill has gone than are the community, the State Bar Association, and the State Medical Society. We take courage, however, in the thought that the fight is by no means at an end; and again we feel that the system now in vogue crops out so frequently, after a disgraceful fashion, that it is bound sooner or later

to kill itself. Farcical procedure, miscarriage of justice—these alone will bring about death, even if certain lawyers do not some day end the whole matter by rising in their wordy might and killing all the coroners, existing and prospective. It is reported that the bill which will go to the Legislature is a step in advance, in that coroners' juries are to be abolished. Without the jury, however, will not the coroner feel lonely, since he will not have an audience before whom he may demonstrate his superb incapacity for office? Like the parrot of sainted memory, we may, however, exclaim, "For what we are going to receive, make us, O Lord, duly thankful!" The entering wedge in time splits the log!

LEGISLATION FOR THE QUACK.—While the educational question is on the *tapis*, and our State institutions, through the medium of their respective governments, are taking active steps to weed out by legislation that class of aspirants which, by reason of defective education in preliminary branches, is totally unfitted for pursuing the study of medicine, would it not be an excellent idea to insert a clause that will remedy the evil growing out of the practice of specialists, so called, who go about the country advertising all manner of cures and using people's names indiscriminately to substantiate their advertisements, which are generally absolutely false? In most cases these "specialists," better known to people of intelligence as "unscrupulous quacks," have a diploma or license to practice, and so long as there is no direct charge of *malpractice* they are safe from process of law. The wily "specialist" of this class does not run an account, he must have his fee in advance, and his engagements(?) will not admit of a stay longer than a week, or at most two weeks. But it is an exceedingly profitable one, he lives in style, advertises the marvelous cures he performs, and carries away with him a good portion of hard-earned savings of a class of persons who can least afford to be humbugged in that way. The practice is a usurpation of the moral right of the local physician, and is a species of fraud imposed on an innocent and guileless public which ought to, but does not, know better. A removal of the cause would be a wise step, and will work good.

A New Departure.—A contract has been given out in Philadelphia for the construction of a ten-story building designed especially for offices of medical men and dentists. It will be known as the "Physicians' and Dentists' Building"; will have a restaurant and dining-room on the tenth floor and be filled in suites of three rooms each with all modern conveniences.

MATERIA MEDICA

Department Editor

WILLIAM FANKHAUSER, M.D.

Monesia Bark as an Expectorant.—ROSANOW (*Ther. Wochenschr.*, 1896, Jan. 12)

The author recommends the aqueous extract of monesia (*chrysophyllum glycyphloeum*) bark as an efficient expectorant in cases where ipecac and other remedies produce gastric disturbance. He prescribes it in the following formula:

Extract Monesia (aqu., dry)	2 to 4 gme.
Distilled water	150 gme.
Syrup	30 gme.

Tablespoonful every two hours.

Formaldehyd in Hardening Sections.—H. PLENGE (*Münch. med. Wochenschr.*, 1896, XLIII, p. 71)

Thus far it has been almost impossible for the practitioner himself to prepare microscopical sections of growths, etc., as are sometimes necessary for correct diagnosis. The author recommends the use of formaldehyd to effect the hardening of the sections. By his process, however, the use of a Yung's planing-microtome becomes necessary. The method consists of the following steps:

1. Hardening of the section, cut as thin as possible and about 1 ctm. long, in a 4-per-cent. solution of formaldehyd. With sections 1 mm. ($\frac{1}{8}$ in.) thick, half to one hour is sufficient to allow for the hardening process. A longer immersion does no harm; still it should not exceed a week. The solution need not be renewed, and it may be used several times before changing.

2. Preparation of the frozen section. The disks or cuts are frozen in formaldehyd solution or in water. The latter is recommended for harder objects. The sections are best made about 30 to 10 microns thick.

3. Immersion in water, previously boiled, to free it from air, or, better still, in 50-per-cent. alcohol.

4. Staining in aqueous solutions of the aniline dyes.

5. Washing in water; alcohol, oil, Canada-balsam. The sections are well adapted for permanent mountings. Dr. P. states that this process is applicable to almost all cases. If sections have to be sent to a pathological laboratory for further examination, they should be preserved in a 4-per-cent. solution of formaldehyd in preference to alcohol.

Codeine in Coughs.—ROBT. H. BABCOCK (*Medicine*, 1896, II, p. 205)

In an exhaustive paper on the various kinds of cough and their treatment, the author draws attention to the value of codeine as a calmate. In the last stages of *pulmonary tuberculosis*, as is known, the patients are often robbed of sleep and exhausted by the frequency of their cough. In such cases codeine is considered as by far the best remedy at our command. It is preferable to morphine or crude opium, because it rarely disturbs appetite or digestion, and is generally free from their unpleasant after-effects. The phosphate of codeine is preferable to the sulphate, because containing a larger percentage of the base, besides being readily soluble and suitable for hypodermatic administration.

In cases of gripe with frequent paroxysmal cough, the author has employed hypodermatic tablets of codeine phosphate, and been greatly pleased with this mode of administration.

In another case in which severe and almost incessant coughing due to *acute bronchitis* threatened to break down the heart, already greatly enfeebled from mitral and aortic disease, the following prescription accomplished the very happiest results:

Codeine Phosphate	1 gme.
Bromoform	7.5 gme.
Comp Syrup Squill	10 gme.
Syrup Lactucarium	To make 130 gme.
Powdered Acacia	Sufficient for emulsion

Two teaspoonfuls every two hours.

In the very early stage of an acute bronchitis with substernal soreness, squill is inadmissible, and the hive syrup of this formula had better be replaced by syrup of ipecac or a minute amount of tartar emetic.

Enterol, a Gastro-Intestinal Antiseptic.—VOSS (*Pharm. Ztg.*, 1896, XLI, p. 30)

Enterol is described as a mixture of the three isomeric, chemically pure cresols, in the proportions in which they nominally exist in the human intestines (preventing intestinal putrefaction of the latter). It is a caustic substance, possessing a very disagreeable odor; it is therefore best administered in pill form, or in capsules. In 1 : 5000 dilution enterol is said to be non-poisonous. Of this solution from 1 to 5 c.c. (16 to 80 min.) may be taken daily. In gastric and intestinal troubles enterol acts as a strong antiseptic on the products of decomposition in the intestines, if the latter have previously been cleansed. A purgative should preferably be administered simultaneously with the enterol.

Treatment of the Gastro-Intestinal Form of Gripe.—G. LEMOINE (*La Clinique*, II, p. 165)

The gastro-intestinal form presents almost all the symptoms of enteric fever, and is to be distinguished from the latter mainly by its shorter duration (10 to 15 days), and by the form of the thermic curve.

The author has had success in treating this form of influenza by proceeding much as he would in the case of typhoid fever; that is, by the use of intestinal antiseptics (such as salol, naphtol, bismuth salicylate), cold baths every three hours, caffeine and milk to sustain the heart and to assist renal action, and by the use of alcohol and other stimulants.

As a tonic he recommends the following compound wine:

Lunel Wine	400 gme.
Syrup Orange-peel	30 gme.
Glycerin	15 gme.
Extract Cinchona	20 gme.
Tincture Coca	15 gme.
Tincture Cinnamon	10 gme.

Profuse diarrhea may be controlled with bismuth salicylate in daily doses of 2 to 4 gme. (30 to 60 grn.); or with lactic acid, 2.5 gme. (38 grn.) of the latter being given during the 24 hours, in the following mixture:

Lactic Acid	2.5 gme.
Syrup Lemon	50 gme.
Water	100 gme.

Convalescence in gripe is always of long duration and demands a great deal of precaution. The patient should keep to his room. Rest and warmth will do more toward complete recovery than medicaments. The treatment during this stage should consist chiefly in the administration of tonics—alcohol, coffee, coca, kola, extract cinchona, etc.—and also of lukewarm or cold water douches, according to the season, followed by dry friction.

Stimulating waters, such as Orezza, Bussang, Renlaigne, may also be taken with meals to advantage.

SURGERY

OPHTHALMOLOGY, OTOTOLOGY, RHINOLOGY,
LARYNGOLOGY, DERMATOLOGY, ORTHO-
PEDIC AND GENITO-URINARY SURGERY

Department Editor
SAMUEL LLOYD, M.D.

GENERAL

In charge of B. FARQUHAR CURTIS, M.D., WILLIAM B. COLEY, M.D., and E. M. FOOTE, M.D.

Results of Operations Upon the Stomach.—

HABERKANT (*Archiv. f. Klin. Chir.*, 1895, LI, Nos. 3 and 4)

HABERKANT, of Dantzig, has made a very exhaustive study of the literature of operations upon the stomach.

RESECTION OF PYLORUS.—He has collected 359 cases, with 176 recoveries and 183 deaths; 257 of these were for carcinoma, with 117 recoveries and 140 deaths; 50 were for ulcer, with 30 recoveries and 20 deaths. The total mortality for resection was 51 per cent.; the mortality for carcinoma, 54.4 per cent.; the mortality for ulcer, 40 per cent.

The statistics of the various surgeons varied between 35 per cent. (CZERNY) and 66.6 per cent. (LOWENSTEIN); BILLROTH's mortality was 53.6 per cent.

GASTRO-ENTEROSTOMY.—H. collected 388 cases: 241 for cancer, with 136 recoveries and 105 deaths, and 47 cases for ulcer, with 35 recoveries and 12 deaths. The total mortality was 41.5 per cent., while for carcinoma it was 43.5 per cent., and for ulcer 25.5 per cent. The mortality was much lower in female patients. In 117 men it was 50.4 per cent., and in 96 women it was 35.4 per cent.

A study of the final results is of great interest and importance. Thirty cases died 1 to 6 months after operation. Twelve from 6 months to 22 months after. Only 2 cases were alive more than 10 months; 1, 1 year and 11 months, and 1, 2 years.

PYLORECTOMY FOR CARCINOMA.—The final results of pylorotomy for carcinoma were as follows: Of 51 cases that recovered from operation and were traced, 26 died from recurrence in 1½ months to 5¼ years. Of these 26 cases, 11 died during the first 6 months after operation; 9 others the second 6 months; 1 died 15 months after operation; 1, 3 years; 1, 5¼ years; 13 cases were alive and well at time of report, more than 1 year after operation; 9 of these had gone beyond 2 years, 4 beyond 3 years, 1 (Kocher's) had gone 5 years and 4 months, 1, 8 years.

PYLOROPLASTIC OPERATIONS.—H. collected 51 cases with 40 recoveries and 11 deaths; TORSTA, 31 cases; 38.7 per cent. mortality.

A Method of Making Traction Upon the Fingers.

—SCHMIDT (*Münch. med. Wochenschr.*, 1895, p. 905)

SCHMIDT suggests that extension would be an excellent method to employ in the treatment of fractures of the fingers, and has found that if two small holes are drilled in the free portion of the nail, close to its point of detachment from the matrix, and a stout thread be run through these holes so that its ends pass from the dorsum toward the palmar surface and its loop lies across the dorsum of the nail between the holes, a weight of two kilogrammes can be borne without breaking the nail. Much less tension than

this, however, will answer all necessities. In two cases he has seen the newer part of the nail soften under the traction and the nail thrown off, but a new nail developed in course of time. This method of extension he considers far superior to any by sticking-plaster.

The Operative Treatment of Congenital Struma.

—E. LUGENBÜHL (*Beiträge zur klin. Chir.*, XIV, No. 3, p. 713)

LUGENBÜHL reports the case of a child operated upon for congenital tumor.

Soon after birth the child's head was strongly drawn backward. Stridor with inspiration was observed, and a tumor was found on the anterior portion of the neck which corresponded in form and position to the thyroid gland. All of the lobes were enlarged. On the second day, asphyxiation after change of posture. After mechanical stimulation of the heart it revived. As the condition was gradually becoming worse, the child was operated upon. Healing progressed satisfactorily, and on the fourth day the tracheal cannula was removed. It was very difficult to nourish the child. On the fourth day pneumonic signs developed, and on the sixth it died.

The child's mother also had a goiter and came from a family suffering from this affection.

Formalin-catgut.—HOFMEISTER (*Centralbl. f. Chir.*, 1896, p. 193)

From the various methods which have been advocated for the preparation of catgut by formalin, the author has selected the following as the simplest and most satisfactory:

1. Hardening of the catgut on glass spools in 4-per-cent. formalin solution for 24 hours.

2. Boiling in water for 10 minutes.

3. Preservation in alcohol containing 5 per cent. of glycerin and 1½ per cent. of corrosive sublimate.

From the beginning to the end of the process the catgut remains on the same spools, and is not touched by the fingers. If it is not wound on spools it is twisted by the formalin, and especially by the boiling, into useless kinks.

When it is first put into formalin, it is necessary to see that no air bubbles remain in contact with the catgut.

Bacteriological Examinations of Hernial Fluid, with Reference to Pneumonia complicating Strangulated Hernias.—H. SCHLOFFER (*Beiträge zur klin. Chir.*, XIV, No. 3, p. 813)

After a series of experiments the author draws the following conclusions:

1. The fluid from human herniæ was sterile.

2. In the animal experiments bacteria were found after a seven-hours incarceration. After a more prolonged incarceration the cases with bacterial contents increased in number. But bacteria were absent in some animals even after two or three days' incarceration.

Fluid with bacteria was found with a functionally active intestinal loop, while, on the other hand, with even severe disturbance of nutrition of the intestines the fluid may be sterile.

3. Once bacteria are present in the fluid, they increase in number in most cases during the incarceration, rapidly or slowly.

4. The fluid possesses a considerable bactericidal power; but this disappears gradually, and the bacteria finally find it a very good culture medium.

5. In the human body the diplococcus pneumoniæ of FRÄNKEL-WEICHELBAUM may escape from the intestines into the hernial fluid.

This would prove the connection between the strangulation and the pneumonia which occurs with it. We are led to explain its development to an embolic, septic infection, in accordance with GUSENBAUER-PIETZIKOWSKY's teachings.

[It is probable that the latter view is correct and that it is purely a septic pneumonia following sepsis at the point of strangulation. The only influence the hernia has upon this process is that it furnishes a field for the invasion of the bacilli.—ED.]

ORTHOPEDIC

In charge of T. HALSTED MYERS, M.D.

Recrudescence Rickets.—JONES (*Lancet*, No. 3780, p. 358)

JONES exhibited a girl 16 years of age with this affection. She could walk perfectly until two years ago, when considerable epiphysial disturbance occurred. Changes were apparent in the skull, jaw, upper limbs, sacrum, and lower extremities. The fore-arms presented the usual deformities ascribed to crawling, although during infancy and childhood they were perfectly straight. The family history was good, and no dietetic cause could be found for the deformities, which were very extreme. Mr. JONES said he had seen twenty or thirty such cases.

Tender Toes of Typhoid Fever.—OSLER (*Johns Hopkins Hosp. Rep.*, V, Nos. 6, 9, 1895)

The author calls attention to this distressing affection, which he thinks should be classified as a neuritis. HANDFORD, describing one case, said there had been tenderness of the toes of both feet for some weeks past, so that the nails could not be cut on account of the pain it caused in the nail-bed and in the pulp at the end of the toes. In three other cases he had seen this pain in the toes, and in one of them in the arms also. In one of them a cradle had to be used to relieve the toes of the weight of the bed-clothes. In none did muscular wasting follow, nor definite loss of sensation. OSLER did not think the condition due to the cold-water treatment. Hot-cocaine solution or cotton-wool seems to give most relief.

Non-interference in Abscess of Chronic Tuberculous Disease of the Joints.—SHAFFER (*N. Y. Med. Jour.*, No. 900, p. 265)

SHAFFER reports in detail here every case of abscess which has been treated in the New York Orthopedic Hospital from May 1, 1892, to October, 1895, 29 in all. The cases were therefore in no sense selected ones. The treatment pursued may be summarized as follows:

(a) Efficient and continuous mechanical protection. The long Taylor traction splint was used in hip-joint disease; the anterior-posterior spinal support in Pott's disease; an immobilizing and traction apparatus in knee-joint disease.

(b) Constitutional remedies.

(c) Rest in bed during the treatment of the deformity in hip disease, and recumbency in the acute phases of Pott's disease.

(d) In all cases the abscesses were allowed to open spontaneously, no pressure or force being used; aseptic dressings were applied at once just as if an artificial opening had been made. In a few cases irrigation and drainage were employed. In the majority of cases all that was done was to keep the

parts clean externally by the use of peroxide of hydrogen, bichloride-of-mercury solution, carbolic-acid solution, etc.; no iodoform was used.

Of the 35 patients, 26 remained in the hospital a sufficient time to test the value of this plan of non-interference. Of these 26 patients, 3 had each two distinct abscesses, making 29 abscesses treated in all. Of these, 8 underwent complete absorption; 19, after opening spontaneously, closed in periods ranging from two to twenty-one months; and in 2 there are still small sinuses discharging a few drops of pus daily.

Of the 29 abscesses, 93 per cent. have either closed or been absorbed. Of the remaining 9 patients, 1 was removed before adequate joint-protection had been afforded, on account of the location of the abscess. One abscess was nearly well when the patient entered the ward. Seven patients entered the hospital with either phthisis pulmonalis or multiple joint disease, or were removed from the hospital while under active treatment. Of these, 5 died, and 2 have small sinuses which discharge slightly. Dr. SHAFFER was led to adopt this treatment from long clinical experience and for the theoretical reasons that these abscesses are tubercular, not pyogenic, and are often absolutely sterile; that they are a symptom, a reservoir, not the source of the disease; that logically one should go on and excise the joint if one opens a tubercular abscess connected with it; for, unless all the tubercular material is removed, there is increased danger with a freshly incised wound and it is impossible to insure perfect sterilization of an open sinus for a prolonged period. His clinical results when he incised and drained these "abscesses," both before and after the discoveries of LISTER, were not so satisfactory as those which followed non-interference. Repair was delayed rather than promoted. While the burrowing of an acute pyogenic process demands immediate intervention, the slow burrowing of a chronic abscess need not be feared. Dr. SHAFFER holds that so long as we know of the existence of an abscess in chronic joint disease by our sight, or by palpation only, we are perfectly justified in leaving it alone. Should a mixed infection ever occur, provided the symptoms are slight, do not be in a hurry to use the knife; the septicemic flurry may and probably will soon pass over, if the articulation is well protected. If the symptoms are severe, there is no question that free incision must be practiced.

DERMATOLOGY AND SYPHILIS

In charge of HENRY W. STELWAGON, M.D.

Assisted by EMANUEL J. STOUT, M.D., and CHARLES N. DAVIS, M.D.

Abstracts of Transactions of the French Society of Dermatology and Syphilography, Session held Dec. 12, 1895.—WICKHAM (*Monatssch. f. prakt. Dermat.*, No. 2, 1896)

CURATIVE ACTION OF ERYSIPELAS IN LUPUS.—HALLOPEAU, who is an ardent defender of this theory, presented a young married woman previously affected with lupus vulgaris of the nose, with disseminated nodules. The usual methods of treatment had no permanent result. Six years ago she had an attack of facial erysipelas; the lupus terminated in recovery and has not relapsed since. HALLOPEAU demonstrated the correctness of this fact years ago and proposed an isolation department, in which lupus patients could be inoculated with products of benign erysipelas, intending to resort to injections of toxins of erysipelas or applications of ichthyol in case the artificial erysipelas should pursue an aggravated course.

BESNIER vigorously opposed these views. He thought a favorable termination of erysipelas could not be safely predicted when it had assumed a dangerous course, and that the anti-streptococcal injections might prove ineffectual. He has seen numerous lupus cases in the St. Louis hospital which had contracted erysipelas in which only a momentary checking of the process could be noted. Relapses occurred nevertheless.

BARTHÉLEMY remembered seeing a case of lupus treated by scarification in Professor FOURNIER's department, which died from an attack of erysipelas.

WICKHAM has seen marked elephantoid hypertrophy of the tissues result in a lupus patient affected with erysipelas, which only commenced to improve after two months.

NEURODERMITIS AND ECZEMA SEBORRHOICUM.—WICKHAM presented a patient with a general, red, scaly dermatosis, having a very complicated pathogenesis. The objective symptoms, taken alone, corresponded to eczema seborrhoicum. The eruption had appeared six days after a fall from a third-story window. Three days later severe itching followed. After three more days the eruption appeared. One would be led to think of a disseminated neurodermitis, inasmuch as the itching was very severe, although the neurodermitic lesions do not appear in the form of a seborrheic eczema. He thought it probable that the nervous shock might have acted in a peculiar manner on the glandular apparatus of the skin and produced an eruption resembling seborrheic eczema. The patient had been using irritating applications from the commencement of the disease; these may have changed the appearance of the lesions. BROcq was not inclined to regard the case as a pure neurodermitis or as a dermatosis due to irritation. He regarded the case as a psoriasiform, lichenoid, sensitive, and irritated seborrheic eczema in a nervous individual predisposed by traumatism to pruritus. Viewed from another standpoint this case raises the important question relating to the grades existing between psoriasis and seborrheic eczema.

MULTIPLE CHANCRES.—FOURNIER presented a case of multiple syphilitic chancres of the skin of the abdomen. He also showed a case of parasymphilitic hysteria. GALEZOWSKI read a paper on hereditary syphilis of the eyes in the second generation.

LEPRA NOSTRAS—DU CASTEL presented a case of supposed lepra nostras in a woman undoubtedly afflicted with lepra. This person resided in Dieppe, and her parents belonged to this city, and she had never been out side of France. He regarded the case as of great importance on account of its exceeding rarity.

PEMPHIGOID TUBERCULOSIS CUTIS.—HALLOPEAU read a paper on a new pustular and pemphigoid form of tuberculosis cutis and the pathogenesis of this dermatosis. The following conclusions are arrived at: Pustular tuberculosis in young people can furnish the point of origin of deep cutaneous infiltrations, which rapidly spread superficially, forming plaques measuring several centimeters in diameter; partial ulceration of their surfaces can be present or absent. The ulcerations are due to the formation of new pustules and show a tendency to rapid cicatrization. Bullous, pemphigoid elevations can occur on the epidermis in the periphery of these plaques. These changes may coincide with other tubercular infiltrations in the shape of agminated nodules and eruptions of lichen scrophulosorum. A small hair is sometimes situated in the center of the initial pustules; the pustules can be regarded as being situated around the hair follicles. This localization,

as also that in lichen scrophulosorum, in the surrounding of the sebaceous glands, appears to be in contradiction with the otherwise exclusive seat of tuberculosis in the connective tissue. This can, however, be explained by the hypothesis that the chemical composition in the surrounding of organs of higher structure varies in consequence of the products of disassimilation which the connective tissue receives from them. One can understand that the latter is converted into a favorable soil for the development of the bacilli of KOCH only in the territory of certain elements.

HYDROCYSTOMA AND DYSIDROSIS.—ROBINSON, HALLOPEAU stated, has confounded two different kinds of disturbance in his description of hydrocystoma. The one is permanent and consequently forms real cysts—the description is appropriate for these; the others are cases of true dysidrosis confined to the face.

Treatment of Hyperidrosis.—FRANK (*Monatssch. f. prakt. Dermat.*, XXII, Feb., 1896)

Among modern remedies for the treatment of hyperidrosis, the chlorated combinations with ether and the preparations of methylic acid occupy a prominent place. FRANK calls attention to formalin, in 10–20 per cent. alcoholic solution, which causes hyperidroses to disappear very promptly. He has employed tannoform (a powder consisting of formalin and tannin) very successfully in about 50 cases, especially in bromidrosis pedum.

Treatment of Onychomycosis Trichophytina.—M. SABOURAUD (*Annal. de Derm. et de Syph.*, Jan., 1896)

In a case of onychomycosis trichophytina involving all the nails of the right hand, SABOURAUD employed the following treatment: Each finger was bandaged with absorbent cotton saturated with the following liquid:

Iodini.....	1 gme. (grn. xv)
Potass. Iodidi.....	2 gme. (grn. xxx)
Distilled Water.....	1 liter

The bandage was covered and maintained in position by a rubber finger-stall. This plan allows complete freedom of the fingers, and occupation is not interfered with. After four months of treatment the diseased part of the nails was noted to be divided from the healthy part by a transverse line. He states that the spread of the cryptogam is arrested by this method, and considers it superior to evulsion and creation of an artificial paronychia.

Treatment of Onychomycosis with Pyrogalllic acid Ointment.—W. DUBREUILH (*Monatssch. für prakt. Dermat.*, XXII, Feb., 1896)

Although trichophytosis unguis is usually not a very painful and troublesome disease, such cases occasionally occur. According to the author, the methods of treatment in vogue have not proved satisfactory. He therefore has used CELSO PELLIZARI's method of treatment, resulting in a complete cure in five cases. The entire neighborhood of the diseased nail is smeared twice daily with pyrogalllic acid ointment (ac. pyrogall., ol. olivæ, aa) and bandaged. When the entire surrounding of the nail has become acutely inflamed, the epidermis darkly discolored and raised up by pus, and the nail movable, the ointment is discontinued, the parts are carefully cleansed, the pus is removed by incision, and the parts are bandaged antiseptically twice daily. In a few days the blackened nail falls off spontaneously and is replaced by a new nail.

SOCIETY MEETINGS

NEW YORK ACADEMY OF MEDICINE

SECTION ON ORTHOPEDIC SURGERY

March 20, 1896

NEWTON M. SHAFFER, M.D., Chairman

Non-union of the Tendo-Achillis.—Dr. NEWTON M. SHAFFER presented a boy whose tendo Achillis had been tenotomized by PEAN when the boy was 19 months old, and then the case had been turned over to an instrument-maker for the after-treatment, with the result of non-union of the tendon, and deformity. The original condition was said to have been an equino-varus. The speaker said that many years ago he had seen one case of non-union and suppuration, occurring in a very unmanageable child.

Dr. ROYAL WHITMAN thought the patient showed the effect of ant. poliomyelitis, which had affected the muscles of the front as well as of the back of the leg. An operation had undoubtedly been performed in infancy, but the evidence of its direct connection between this operation and the present deformity was to him inconclusive, because the extent of the original paralysis was unknown, nor could a subsequent attack be excluded as a possible explanation.

Dr. W. R. TOWNSEND said that he had observed several hundred cases of tenotomy of the tendo-Achillis without the occurrence of non-union. He had seen one or two cases that had suppurated, yet in these union had been perfect. Moreover, he had never met with a well-authenticated record of such a case, and it must certainly be very rare.

Dr. R. H. SAYRE said that he had never seen non-union of the tendo-Achillis, but he thought it might occur by the application of dressings in such a manner that no chance would be given for the exudate to fill the gap between the divided ends of the tendon. To avoid this in his own practice he always covered the puncture made by the tenotome with a broad strip of moleskin adhesive plaster. The history of this case was far from conclusive; there might have been a second attack of anterior poliomyelitis subsequent to the operation, resulting in the present calcaneus. It was also possible that this case might be one of too long splice between the ends of the tendon, and not an instance of non-union.

Dr. TOWNSEND said that for the past 10 years Dr. GIBNEY had advocated the placing of a pad over the gap between the tendons so as to avoid undue pressure, and the possibility of non-union.

Dr. WHITMAN said that for some time past he had divided the tendo-Achillis, supercorrected the foot, placed it in plaster-of-paris, and allowed the patient to use the foot at once. He had found this much more satisfactory than the older method of enforced rest, as the weight of the body might be immediately utilized to aid in the correction of deformity, while the process of new tendon formation seemed to be stimulated and aided by the use of the foot.

Dr. SHAFFER said that this boy had walked at 11 months, and at 19 months had had some form of illness, which had been followed by contractures of the limb. The scar was present as evidence that the operation had been performed. He had very carefully examined the foot, and was positive that there was absolutely no union of the tendon. The mother of this boy was present and personally witnessed the operation.

Hysterical Paralysis of the Arm.—Dr. T. HALSTED MYERS (through Dr. SHAFFER) presented a young girl who, three weeks ago, had awakened one morning and found the right arm powerless, with some slight change in the temperature of the limb and evidence of slight congestion. Examination showed paralysis of both sensation and motion. The electrical reactions had been absolutely normal, and the diagnosis of hysterical paralysis had been made. The girl was of a distinctly neurotic temperament. Under simple treatment the case had already improved.

The Treatment of Tubercular Osteitis of the Knee at any Stage of the Disease or Deformity.

—Dr. VIRGIL P. GIBNEY presented a number of patients in the various stages of knee-joint disease, and a modification of the Thomas knee-splint. Instead of the complete ring at the ischium there was a horseshoe-shaped support. He had found that the patients walked better with the stem of the brace on the inner side. The brace was also provided with a half ring adjusted to the popliteal region, and a check-strap to prevent dropping of the toe. He also exhibited the Cabot frame, as modified by Dr. STEELE, of St. Louis. By the addition to the frame of a light double inclined plane, with a pulley and elastic cord, it was easy to make traction of any desired amount up to 25 lb. This method of extension had been found better for the reduction of the deformity than manual correction under an anesthetic. These cases were made the basis of a few remarks, rather than a formal paper, on the subject indicated by the above heading.

Dr. GIBNEY said that the methods at first employed had not made him feel at any time confident as to the result. Protection was the great underlying principle of treatment, and he wished to express his indebtedness to that great philanthropist, Dr. HUGH OWEN THOMAS, of England. In the early stages before deformity, and where there were reflex spasm and tenderness, the indication for protection was paramount. Except in very young children, the careful application of plaster-of-paris over a thin stocking or gauze bandage, he thought, gave the best results. In very young children he had seen a cure effected by means of plaster alone. Two of the cases reported had been treated with both plaster-of-paris and the Thomas brace, and with an almost perfect result. The signs of tubercular osteitis were not always positive, as shown by two cases related, in which treatment for the joint disease had been carried on for a considerable time, and finally there had been a development of a mitral lesion, and the cases had after all been apparently rheumatic, and not tubercular. In a few instances the double inclined plane, with weight and pulley, had been used with advantage. It was often difficult to decide upon the advisability of making extension under an anesthetic. Ordinarily this could be done with advantage, if performed cautiously and not with the idea of producing *brisement forcé*. In some cases in which the deformity was very marked, no purchase could be obtained upon the limb until the deformity had been partly reduced by manipulation under an anesthetic. In the more severe type of cases, excision or amputation might be demanded in order to save life. In some cases the disease was so advanced that excision offered but little hope, and where there was marked amyloid disease and albuminuria. In such cases an amputation might be of benefit where nothing else would be. In adult life, there were some cases demanding operation. For example, a lady of 38 years came under his care in 1891 for an old osteitis of the

knee. She suffered frequently from severe attacks of pain in the knee. She was treated first by plaster-of-paris continuously for a period of about twelve months, and with good result, but she then abandoned treatment. In 1893 Dr. GERSTER excised the knee-joint. She made an excellent recovery after the excision, and had been quite well ever since. It was not at all uncommon now for him to advise adults with irritable knee-joints to have the joint excised, and the results had been very good in most instances. In conclusion, he would say that abscesses should be first treated by the aspirator, and subsequently, if necessary, by arthrotomy or arthrectomy, and finally by amputation where all other methods failed. Above all, an outdoor life and the best hygienic conditions should be secured.

Dr. A. B. JUDSON agreed with the principles of mechanical treatment which had been presented in the paper. What could be better than fixation and protection in the treatment of the joint diseases of the lower extremities of children? Wide latitude in the details of application is allowable and desirable. He was gratified to see that in such a large group of patients affected in this way there was only one pair of crutches. Ischiatic support is vastly superior to axillary support where habitually used to remove the weight of the body from a diseased joint. The form of ischiatic crutch worn by these patients is a reversion to an old type. Dr. EDMUND ANDREWS, in the *Chicago Medical Examiner* for 1860, had described a padded crutch-top resting against the perineum while the shaft extended to the shoe on the inner side of the limb.

Dr. MYERS said he had been especially interested in the case of knee-joint disease complicated with paraplegia. He had had such a case under his care, and it had proved very difficult to manage on account of the immensely exaggerated reflex muscular spasm. In his case there had been suppuration which was now subsiding; the paraplegia had disappeared. The ultimate result, he thought, from present indications would be good.

Dr. TOWNSEND said that of course it was very difficult to decide when to amputate. He felt that in many cases amputation had been too long delayed because it was thought that as children stood these diseases so well, they would be able to control the disease after all. Where destruction of a joint was great, and nothing but a poor limb could be obtained, it seemed to him better to resort to amputation earlier than was commonly done. Conservatism was apt to lead us too far in this particular direction.

Dr. FREDERICK KAMMERER asked if Dr. GIBNEY had had any experience in the treatment of these cases with Bier's method. After MIKULITZ had made known his method of combined injections and venous stasis with the Esmarch bandage, the speaker said he had resorted to it in quite a number of cases, and with excellent results. Large, spindle-shaped swellings, both of the knee and ankle, had, under this treatment, disappeared. Where the capsule had not shrunk there had been in a few cases an entire restoration of function, and this had remained permanent for five or six months. His method had been to apply the Esmarch bandage tentatively at first, for in some very pronounced cases of disease of the knee he had been compelled to supplement this treatment by resection. It was hard to say as yet what cases were most suitable for Bier's treatment. His plan had been to subject the extremity to venous stasis for about two weeks, and, if the treatment were well borne, he had then begun the injections of a 10-per-cent. solution of iodoform and glycerin. The reaction generally subsided in three

or four days, after which the Esmarch bandage had been again applied for two or three weeks, and again followed by the injections. He had been very much gratified with the results of this treatment, even in very advanced cases of disease.

The Chairman, Dr. SHAFFER, said that the braces exhibited were, as had been said, really a modification of the old Andrews brace which he had extensively used at one time. It should not be called, therefore, a modification of the Thomas splint. He was very fond of using traction, with or without a perineal support, in the treatment of knee-joint disease, but we should not forget that we were treating a condition, and not a deformity. This important fact was too often overlooked by the orthopedic surgeon. He favored the use of an instrument which produced direct traction downward and forward, and overcame the subluxation. He felt that if amputation were to be performed at all, it should be done much earlier than was usually the case. He distinctly recalled four cases in which, on exploratory incision into the joint, the condition was so bad that nothing but amputation was indicated; for this reason, he now made it a rule to obtain the consent to amputation, if necessary, prior to beginning an operation on the knee.

Dr. GIBNEY, in closing the discussion, said that when he had presented this splint to the American Orthopedic Association last September, the members had told him that the splint was not a modification, but an entirely new splint, yet now he was told that it was a modification of the old Edmund Andrews splint. Such good results had been obtained in the last few years from the Thomas splint that he felt very loth to give it up, although it was often necessary to modify the original Thomas splint so as to overcome its clumsiness. He had not employed the Bier's treatment systematically. A few years ago he had employed the iodoform injections in a number of cases, but the results had not been as good as in those cases in which the joints had been simply aspirated and then protected. It was undoubtedly true that the tendency was to wait too long before resorting to amputation, but so much had been accomplished by other methods, even in seemingly desperate cases, that orthopedic surgeons were usually loth to amputate.

In conclusion, he expressed the hope that whatever plan of treatment was adopted, every detail would be carried out with extreme thoroughness, and that asepsis would be preserved most carefully. The latter part was too often neglected.

GENERAL MEETING

April 2, 1896

JOSEPH D. BRYANT, M.D., President.

The Clinical Aspects of Glycosuria.—Dr. WILLIAM H. DRAPER: Clinically, glycosuria, like albuminuria, is a symptom. As albuminuria does not always or necessarily point to the existence of a renal lesion, but often presents itself as a transient, intermittent, or persistent phenomenon associated with a variety of functional or organic derangements, so the presence of sugar in the urine is always a symptom of variable significance. I have therefore chosen the term "glycosuria" instead of "diabetes mellitus," as the standpoint from which to consider the varied conditions under which this disease presents itself to the practical physician.

Glycosuria is the consequence of glycemia, and in this term, glycemia, we have an advantage over diabetes mellitus as a name for the disease, although it is more familiarly known under the latter name. It

is more precise, and directs attention definitely to a state of the blood which is still imperfectly understood. Chemistry and experimental physiology have thrown much light, to be sure, upon its pathogeny; they have taught us how to explain many of its symptoms, to estimate the degrees of its severity, to measure the progress and to overcome its consequences. It cannot be said that they have rendered as much assistance in its therapeutics, though they have made plain the reasons why the treatment, which is empirical in its origin, is rational in its principle, and especially why diet fails to do good in the graver forms of the disease.

It is not my purpose in this brief paper to consider at length the theories of glycogenesis, but it will be necessary, as we proceed in the discussion of glycosuria as a symptom, to refer to them, in order to make the clinical phenomena which are associated with this symptom, intelligent.

Every one who has seen much of glycosurics must have been impressed with the variety in their personal appearance, with the varied and dissimilar derangements of health for which they seek counsel, and often with the purely accidental circumstances which reveal the true nature of their complaint. There is no better illustration of this statement than the fact that a considerable number of diabetics have their disease revealed by specialists. One falls into the hands of an oculist for amblyopia or commencing cataract; another seeks advice from a dermatologist for a troublesome pruritus or eczema; another goes to a dentist because his teeth are decayed; another consults a stomach specialist for dyspepsia and constipation; another, a neurologist for an obstinate neuralgia or nervous prostration;—indeed, the symptom complexes which are observed in glycosuria are numerous and diverse, and it is not surprising that the constant and characteristic excretion of sugar by the kidneys is regarded as the essential point in the disease. Yet we know glycosuria is sometimes unaccompanied by any serious derangement of health, and that, excepting in cases where it is associated with lesions of the nerve centers, or with diseases of the viscera, it is by no means a constant symptom; it may have no apparent cause and no demonstrable lesion.

No theory that has been devised, physiological, chemical, or pathological, is sufficient to explain all the cases, that fall under our observation. Why glycosuria is sometimes a transient, intermittent, and benign symptom, and at other times a sign of the gravest derangement of nutrition, over which we have only partial control, are problems that have not yet been solved. Physiological chemistry has demonstrated that glycogenesis is sometimes the result of interruption in the metabolism of the carbohydrates; sometimes an inexplicable derangement in the metabolism of the nitrogenous elements of our food. We know that it sometimes follows diseases and traumatism of the central and peripheral nervous system, and that it is sometimes associated with visceral lesions. This is the limit of our knowledge of its pathology.

Our knowledge of glycosuria as a symptom is largely the result of clinical observation; and though we are greatly indebted to scientific research for our means of diagnosing it, estimating its progress, and of measuring its gravity, and, to some extent, of controlling it, we have not yet had the secret of its origin revealed to us.

We recognize practically two clinical varieties of glycosuria: one in which it is apparently the result of imperfect combustion or conversion of the car-

bohydrates of our food, sugars and starches, into their ultimate and constituent elements, carbonic acid and water, and in which the withdrawal of the carbohydrates and the substitution of animal foods and fats causes a disappearance of the sugar from the urine; and a second variety, in which the glycosuria continues in spite of the complete withdrawal of the carbohydrates from the diet. The first form is often mild, intermittent, and always more or less controllable; the second is a grave, continuous, and unmanageable disorder of nutrition, the nature and origin of which are involved in obscurity.

The relation of glycosuria to the glycogenic function of the liver has ever been a vexed question. That it has an intimate connection with the liver glycogenesis is still generally accepted, but it has always had one powerful and persistent opponent in PAVY, who continues to maintain that the liver is a sugar-destroying, and not a sugar-forming, organ. According to PAVY, there is less sugar in the hepatic than in the portal blood. For him, the ingested carbohydrates are partly converted into fat in the intestines and partly into glycogen in the liver, and the disease, diabetes, is the result of the circulation being overloaded with sugar, through a failure of these functions, and its escape unchanged by the kidney. For the advocates of the glycogenic origin of diabetes, the disease arises from the arrest of the ingested carbohydrates in the liver, or the arrested or perverted glycogenic function, so that the sugar is poured into the circulation and necessarily causes glycosuria. These two clinical forms of glycosuria, the mild form and the grave form, are to be explained on either hypothesis, and are really to be regarded as degrees of the same morbid process, whatever that may be. The main factor of the disease is glycemia, and the consequence glycosuria.

As before remarked, this is the present limit of our exact knowledge of the pathogeny of diabetes. From a chemical point of view it is essentially a disease of suboxidation of the elements of our food—nitrogenous as well as non-nitrogenous. The causes of this suboxidation are still obscure: Whether the result of disordered function of one organ or several organs; whether it depends upon the action of a glycolytic ferment which is essential to the digestion of the carbohydrates ingested or formed in the circulation; or whether due to derangement of the nervous influences—are all questions which are not yet satisfactorily solved.

The knowledge derived from clinical observation of the etiology of saccharine diabetes, while it cannot be said to throw very much light on the determining cause, is interesting and important as illustrating some of its predisposing causes. In a certain number of cases which come under our observation in practice, this disease seems to have its origin in an inherited constitutional abnormality of nutrition. Like a Biblical curse, as has been said of hereditary diseases, it descends to the third and fourth generations. The proportion of cases, it is true, in which direct heredity may be traced, is small—much smaller, I fancy, than is generally assumed. GRIESINGER found only three cases of direct heredity in a series of 225 cases. The case stands different, however, if we consider the question of indirect heredity. By this I mean an inherited constitutional incapacity for the easy and rapid digestion of the carbohydrates, tending to the production of glycosuria. This, I think, is a very important circumstance in the clinical history of diabetes—the recognition of this inherited incapacity for the digestion of starches and sugar. I think everybody who has practiced

much among children and among gouty people must have observed their inability to digest any very considerable amount of sweet or starchy food, and I believe that this is a constitutional peculiarity that we recognize very often, and one that is very important to recognize in the treatment of many forms of functional disorder of digestion. It is now too, I think, generally admitted by clinicians that lithemic gout is a congener of glycosuria. In the light of this relationship heredity appears to play a much larger rôle in the causation of diabetes. During the last 25 years, since my attention was first called by the work of BENGE JONES on "Diseases of Suboxidation; the Kinship of the Sweet and the Sour Disease," I have repeatedly observed the occurrence of glycosuria in gouty families; sometimes as an inheritance from a gouty ancestry, sometimes as acquired gout. The number of cases which can be traced to a gouty ancestry is, I believe, considerable. The correlation of saccharine diabetes and the uric-acid diseases is especially interesting in the light of the observation made long ago by GARROD, that the occurrence of glycosuria in a gouty subject will cause an intermission in the arthritic attacks of gout. The same thing has been noticed in sufferers from gravel. It is probably due to the free diuresis produced by the sugar.

After heredity the most important predisposing cause of glycosuria is a limited capacity for the digestion of the carbohydrates. This feeble power for the normal metabolism of sugars and starches is often brought to the attention of physicians in the feeding of infants, in the dietetic treatment of the sick, and in the fermentative forms of dyspepsia. If the same intelligent care were exercised in adapting the diet to the conditions of work in the human subject that is given to the feeding of animals, there is no question that the world would be richer in the fruits of human energy, and at the same time there would be less liability to the evils of vicious eating and drinking.

It is well known that the largest proportion of cases of saccharine diabetes is found in people using fermented liquors to the greatest excess. It has been affirmed that there is a special predisposition to diabetes among Hebrews, and my own experience tends to confirm this view. It may be explained, perhaps, by the fact that the Hebrews, as observed in the western countries, are not an agricultural people, but are engaged in indoor occupations which are unfavorable to the active metabolism of food.

Diabetes is commonly a disease of adult life, most cases occurring between thirty and sixty years of age. Its infrequency in infancy and adolescence is to be explained by the activity of the nutritive processes in early life. The youngest case of diabetes that has ever come under my observation was in a child under one year of age. This, I think, is extremely rare. It is much more common in men than in women. Of the 225 cases collated by GRIESINGER, 172 were men and 53 women. No definite cause can be assigned for this large proportion of men, unless it be that men are more given to excesses in eating and drinking, and are more exposed to traumatism.

Of the occasional cases of diabetes which develop suddenly after traumatisms affecting the central nervous system, or after violent moral or mental shock, no better explanation can be offered than that given by BERNARD in the experimental production of glycosuria. This is not sufficient, however, for all the cases in which the history records nervous shock. It is impossible to deny that physical and

moral shock or strain does sometimes break the train of physiological processes upon which healthy nutrition depends. Excessive or prolonged muscular exertion has been regarded as a predisposing cause of diabetes. It has been so rare in my experience, considering the frequency of severe muscular effort, that it can hardly be regarded as more than an occasional contributory cause acting through the nervous system. The same statement might be made regarding the supposed influence of paludal poisoning as a predisposing cause of diabetes. It is observed, it is true, very frequently in India and in other countries where malaria is common, but not sufficiently often to warrant us in assuming that it is a predisposing cause.

The symptomatology of diabetes derives great interest from the close correlation of many of its symptoms with the direct and indirect effects of its principal index—glycosuria. It is true that in many cases of the benign form of glycosuria there are no symptoms which interfere seriously with the comfort or well-being of the individual. We sometimes meet with persons who have a small percentage of sugar in their urine, habitually or occasionally, who complain of no derangement of their general health. I have in mind three brothers, large, powerful men, who had been gouty and glycosuric for some years before they fell under my observation. They were men of great energy, and carried on extensive enterprises for seven years before they were known to be glycosuric. These cases gradually passed into the grave form of the disease—that is to say, they made sugar from their albuminous food. Two of them were interesting as illustrating the association of glycosuria with lithemia. Both had had arthritic gout, and one had suffered from stone in the bladder. At his death I found 11 stones, some of which had been in the bladder evidently for many years.

The amount of sugar passed in the mild form of the disease does not usually exceed an ounce or two in the 24 hours. This may be caused to disappear by restricting the carbohydrates. It will recur from what may be considered trifling indulgences, such as eating an apple or drinking beer, and the effect may be more than a transient one. Sooner or later, although not always, these mild cases are apt to merge into the severe form, and the patient becomes a diabetic of the carnivorous type.

The most characteristic symptoms of glycemia are the tissue-wasting and the progressively waning strength and energy. There is something peculiarly impressive about the rapid wasting and failing energy of a person suffering from the severe form glycosuria. I have often thought there was nothing comparable to the helpless weakness of a confirmed diabetic, unless it be that of typhoid fever. In glycosuria there is a failure to evolve force of any kind, except for the absolute needs of organic life, because there is a failure in the function of oxidation by combustion. There is plenty of fuel, but no fire. In the early stages of diabetes the carbohydrates seem to be the least combustible of the foodstuffs. In this stage there will be a loss of vital force proportionate to the potential force represented by the unconsumed sugar and starch. In diabetes, as BENGE JONES has graphically expressed it, if no other fuel were supplied to the human machine but sugar, it would rapidly cool and come to rest; the action of the heart and lungs would stop, but fatty and albuminous food may furnish the necessary fuel, just as when the coal fails in a steamer the wood of the ship itself may supply the necessary fuel.

As the accumulation of sugar in the blood is the measure of the force lost to the body through its non-combustion, so the diuresis, the thirst, and the inordinate appetite for food are the indications and the measure of the efforts made by nature to remove the useless fuel by the kidneys, to secure abundant water for its solution, and to repair the waste by fresh supplies of food. The diuresis varies with the amount of sugar to be eliminated, and this of course determines the degree of thirst. It has often been observed, however, that the amount of water passed exceeds that taken in the food and drink. This and the progressive emaciation and drying of the integumentary structures account for the desiccation of the tissues so characteristic of the disease. Glycosurics have been known to pass from one to seven gallons of urine, and to excrete from twenty to forty ounces of sugar, a day. The loss of energy this occasioned has been estimated as follows: Twenty ounces of sugar represent 4.8 oz. of pure carbon, which, if fully oxidized, would generate a force capable of raising ten million pounds one foot high.

I would like to refer to some of the complications which aggravate the sufferings of glycosurics. Neuralgias are by no means uncommon, particularly of the sciatic distribution. Paresthesia, such as burning of the soles of the feet and palms of the hand, and more or less persistent eczema and pruritus, independent of those upon the genitalia, are, in my experience, common. The importance of examining the urine in persistent neuralgias, particularly of the sciatic distribution, is, I think, often not properly appreciated. It seems reasonable to suppose that the neuralgias and many of the integumentary derangements are the result of peripheral neuritis.

Another occasional complication of glycosuria is albuminuria. The albuminuria is generally slight, although where it alternates with glycosuria it may be considerable. It is associated with copious diuresis, and is sometimes intermittent. It is generally observed in persons in whom senile sclerotic changes have begun in the arteries, and is a sign of the interstitial nephritis of the gouty or lithemic subject. I think when we consider the frequent occurrence of glycosuria in persons who are gouty or lithemic, and whose lives frequently terminate by the peculiar gouty nephritis, it is more likely that the albuminuria is in the great majority of cases an indication of the renal complication. It has been said that glycosuria under these circumstances may prove favorable by furnishing a means of securing profuse diuresis. These conditions may certainly exist together for a long time in persons possessing a very fair degree of health.

Another interesting fact is the association of diabetes with obesity. It is well known that diabetes is less serious in persons remaining stout. One of the most painful and troublesome symptoms of glycosuria is constipation, which is largely due to paralysis of the intestinal muscles. It is often difficult to overcome the constipation, even by the use of the most powerful purgatives. There is a form of acute glycosuria which rapidly passes to a fatal termination. These patients usually give a history of great physical or mental shock, severe traumatism, excessive muscular exertion, and extreme fatigue. Most of them, I suspect, are acute aggravations of a previously existing but mild form of the disease. In the grave form of the disease the circulation of unconsumed sugar tends to the production of localized congestions.

The clinical aspects of glycosuria are interesting

from a prognostic point of view. The question of prognosis is a difficult one. I think we may say that the simple form has a good prognosis so long as the patient is under control, and that even pronounced and severe cases of this sort, like those of the kindred disease, gout, may be consistent with the maintenance of good and useful health for years; but when the glycosuria persists in spite of strict animal diet, and associated with a considerable quantity of urea as well as sugar in the urine, the prognosis must be considered unfavorable. In traumatic cases the prognosis is sometimes good, and sometimes bad.

The rational therapeutics of this disease may be summed up in its well-known dietetic management. It should be borne in mind that the non-combustion of the carbohydrates is the starting-point in all cases of glycosuria, in consequence of which the density of the blood is increased. To this density we may ascribe the derangements of the vital functions. For the relief of this condition two rational measures are employed, viz.: (1) Withdrawal of the carbohydrates; and (2) the quickening of the transformation of the carbohydrates into their ultimate elements. These are rational measures, but not easy of application. The restriction of the diet is comparatively easy. The fulfillment of the second requirement is a problem, for the solution of which there has been no end of ingenious suggestions. No drug has yet been discovered which appears to answer this indication. Of those especially recommended it should be remembered that their virtues have never been demonstrated except in connection with a restricted diet. Iron has the power of accelerating oxygenation. The alkalies have often been regarded as specific for glycemia, in consequence of their property of promoting oxidation. There can be no question of their value as an adjuvant to the dietetic management. It is interesting to observe that iron and alkalies are as useful in lithemia as in glycosuria. My own experience confirms me in the belief that it is in precisely the cases in which glycosuria appears to be the congener of the gouty habit that the alkalies appear to do the most good. The favorable action of lactic acid as an adjuvant to the dietetic treatment of diabetes seems to be due to the fact that it enables the individual to endure the diet of animal food with more patience, and seems to assist in the conversion of the albuminates, and in allaying the thirst and other distressing symptoms. Theoretically, there is something very attractive in the idea of administering a geycolytic ferment, which should start a process in the liver analogous in its results to oxidation. This would be an ideal remedy for glycosuria, but no efforts in this direction have so far been successful. The inhalation of oxygen gas and enforced exercise have failed, though they seemed to be simple and rational remedies. Another remedy which is important is opium. In the experience of the Indian physicians it is the most valuable remedy of all. There seems to be but little question that opium, in some form, combined with the alkalies, constitutes the best method of controlling the suffering, if not the progress, of diabetes.

I shall not enter into the many details of dietetic treatment. The principle of the antidiabetic diet is to change the physiological type of man, and convert him from an omnivorous into a carnivorous animal. This is done at the present time by the resources of the culinary art, with less pain and difficulty than might be generally imagined.

Dr. WILLIAM H. THOMSON said that notwithstanding the many advances that had been made in phys-

iology, the mystery of diabetes had become, if anything, more impenetrable than ever. He had long felt that possibly CLAUDE BERNARD had started us on the wrong scent. He was sure that if derangement of the liver had anything to do with diabetes, it was very difficult to say what derangement of the liver it would be. For instance, a sudden hyperemia might result from various causes, yet this does not result in glycosuria. Again, in brown induration of the liver there is no such associated condition as glycosuria. In the production of artificial diabetes in dogs, while the animals were under the influence of the drug, there was no evidence of hyperemia or of paralysis of the vaso-motor system in the liver. On the other hand, the liver was deranged in various ways in the production of jaundice, yet there was no diabetes. Again, the liver might be invaded by a neoplasm which would give rise to much disturbance in the liver, and yet there would be no glycosuria. More important than all was the fact that in cases of extreme cirrhosis, where the function of the liver was most extensively interfered with, there was no glycosuria. In any one of the conditions named there might be sporadic developments of glycosuria, but these were not by any means characteristic. During the past ten years, on the other hand, the attention of the profession had been strongly directed to lesions of the pancreas as having a close relation with the development of glycosuria. Thus, the extirpation of the pancreas had been found to produce invariably, not merely glycosuria, but diabetes, with all the usual symptoms, and ending in death. When the pancreatic secretion was not allowed to enter the intestine at all, no diabetes mellitus or glycosuria was observed.

Further reports showed that three-fourths of this gland might be extirpated without the production of diabetes, but that, if the whole of the pancreas were removed, diabetes would follow. The next step was to show that this remaining portion of the pancreas might be transferred to another portion of the abdomen, and separated from its usual blood supply, and yet would remain there without undergoing atrophy. The most marvelous thing of all was that so long as this little portion of the pancreas remained in the body, although engrafted in a new position, diabetes would not develop. It had been found that there were certain cells scattered through the pancreas which produced a secretion which was necessary in the blood to prevent the production of diabetes. It would seem, therefore, that we were entering upon a new era in which the relation of the glands to the nutrition of the body might be disclosed. Thus, the removal of the testicles in animals produces the well-known and marked change in the nutrition of the animal, and disease of the little pituitary gland was sufficient to produce profound changes in the osseous system. Was it not possible, therefore, that diabetes might have a relation, not so much to the liver, as to the genesis of the glycolytic ferment? From these facts it was evident that we are all at sea as to the pathology of the disease, and must fall back upon the clinical manifestations of glycosuria. He had become convinced that age was a most important factor in the prognosis—the younger the person, the worse the prognosis. He had very little hope for a person under 25 years of age affected with this disease. The development of diabetes in an old person was not at all serious in its significance; it would not shorten the life of that person—indeed, it sometimes seemed to be rather a benefit than an evil. In younger persons the muscular weakness and the feeble heart-action were very prominent in those suffering from

diabetes; in other words, the patients of 25 years appeared to act like persons of threescore and ten, while old persons acted like young ones. He could not bring himself to believe that these very different clinical manifestations belonged to one disease.

The speaker then proceeded to explain his own theory of diabetes. He said that the starchy elements of the food were not burned up in the liver, in the glands of the body, or in the lungs, but in the muscles, as had been conclusively demonstrated. In diabetes the difficulty was not in the excessive formation of sugar, but from the loss of the power of burning up the sugar. He thought, therefore, that diabetes might be due to a disturbance in the innervation of the muscles, which, so far as their heat-making mechanism was concerned, was under the control of the bulbar and spinal centers. If this supposition were correct, it explained many of the familiar clinical manifestations of the disease.

Dr. A. H. SMITH said that it seemed to him quite clear that there was a perversion of nervous influence as the starting-point of the disease. Sudden emotion occasionally produced instantaneous glycosuria. In his own practice he had had an instance of this in the case of a gentleman who had developed diabetes immediately after a severe fright in a runaway accident. Again, physicians knew that a great many of the Wall-street brokers were afflicted with diabetes, probably as the result of the nervous strain and excitement incident to their life. Having learned that diabetes was rather common among locomotive engineers, he had applied to the actuary of their own life-insurance company, and had found that in this class of men glycosuria was about seven times more frequent than among others. It was stated also that this was probably due to: (1) The constant jarring in the engine-cab; (2) the alternate cooling and heating of the body as the engine was in motion or at rest; and (3) the constant and excessive mental strain. His own theory had been that the moment sugar began to circulate it continued to irritate the sensitive center from which the disease had started, and that in this way a vicious circle was established. The element of heredity had not been considered in the discussion so far, yet it was a most important one. If a father were diabetic, he should select an occupation for his son which would not be liable to subject him to such strains as would predispose to the establishment of diabetes. He could confirm what Dr. THOMSON had said about the ease with which glycosuria could be managed in old people, and it should be remembered that the zealous resort to a strict dietetic treatment in these would often prove most disastrous. He felt that the condition called acetonemia was not infrequently precipitated by a too rigid diet.

Dr. W. G. THOMPSON said that he had no theory of diabetes to offer, nor did he consider it at all necessary that we should confine ourselves to any one theory. He had been much interested in the remarks made by the reader of the paper regarding the intimate relation of gout and glycosuria. Indirect heredity was certainly a very common and important element, yet it should be remembered that there were a great many people who were incapable of digesting starchy foods, and yet never developed glycosuria. When glycosuria was once developed, it was evident that the progress of the disease was very largely under the control of the nervous system. It was for this reason, he believed, that so much reliance had been placed in opium and its preparations in the treatment of this disease. He thought this remedy was greatly superior to all others, and in his experience there was very little

danger of inducing the opium habit in these individuals. He greatly preferred opium to codeia. The question of how much water should be withheld from these patients was a very important one. He would divide glycosurics into: (1) Those having a considerable quantity of sugar in the urine, and still in good general health; (2) those having considerable sugar in the urine and yet presenting some constitutional symptoms; and (3) the more acute cases in which neither dietetic nor medicinal treatment seemed of much avail. In the second class dietetic treatment often did but little good, and might even be harmful. It was extremely important to weigh these patients frequently, and if they steadily lost weight it was evident that the diet should be relaxed.

The Cutaneous Manifestations of Diabetes.—

Dr. PRINCE A. MORROW said that the phenomena of diabetes were essentially those of disordered nutrition. The skin was perhaps the most conspicuously influenced by this impaired nutrition, and it was peculiarly prone to suppuration, inflammation, and gangrene. The cutaneous manifestations might be divided into two classes, viz.: (1) Those unmistakably revealing their diabetic nature; and (2) those affections occurring only occasionally and incidentally. By some writers the first class was designated as *dermatoses diabeticæ*. These manifestations are particularly marked around the genitals. The cutaneous lesions of this class are of interest chiefly from their diagnostic importance. The diminution in the quantity of perspiration is often most marked, although occasionally the opposite condition, hyperidrosis, is observed. The skin usually becomes dry and harsh, and the seat of furfuraceous desquamation. Disorders of sensation, particularly pruritus, are common, and this pruritus is not by any means confined to the genital region. Trophic disorders of the sebaceous and hair follicles are observed in the thinning and loss of the hair. Trophic disorders are also observed in the loosening and falling of the nails. The occurrence of erythema had been usually ascribed to the irritation produced by the urine flowing over the skin, but this explanation could not be considered sufficient, as the erythema had been observed in regions not reached by the urine. Diabetic eczema of the female genitals might be differentiated from ordinary eczema by the more marked infiltration, the more abundant secretion, and the surface being more or less glazed. In males, there was sometimes such progressive thickening of the prepuce as to result in phimosis. Diabetic eczema of the male genitals could be distinguished from the ordinary eczema by the inflammation being more acute, the surface more red, and by the existence of weeping and a much more profuse discharge, which was often of a seropurulent character. Vegetations had also been noticed on the glans, frenum, and sometimes even in the urethral canal. They were more vascular than the ordinary condylomata. Of the diabetic manifestations on the general surface of the integument, furuncles were the most common. They were usually multiple, appearing in successive crops. They were distinguished from ordinary boils by their multiplicity and tendency to sloughing and gangrene. Diabetic gangrene is usually of the moist variety, attended by much swelling and rapid necrosis. Alcohol and diabetes favor the development of gangrene. The comparative exemption of women from this complication was explained by their more temperate habits. Xanthoma diabeticorum is a disease peculiar to diabetes. The eruption disappears when the sugar is absent from the urine, and reappears

with the return of the glycosuria. The eruption consists of small conical tumors, with yellowish apices. They are essentially inflammatory, and are associated with sensations of burning or itching. The eruption might remain stationary for months or years, and then undergo rapid involution. Herpes zoster of a peculiarly severe and persistent character had been observed in diabetics, and psoriasis had been noticed as being very commonly associated with this disease.

Dr. G. H. FOX said he desired to call attention to the localization of the eruption in the xanthoma which occurred so often with glycosuria. The eruption was found on the extensor aspects of the extremities, and upon the lower portion of the back and on the gluteal region. It disappears with the cessation of the glycosuria. The eruption consists of pale-yellowish, flattened nodules, and when these are present, particularly on the lower portion of the back and buttocks, the diagnosis of glycosuria might be said to be written on the skin.

Dr. S. SHERWELL said that he had been particularly impressed with the consensus of opinion regarding the diet in cases of glycosuria, particularly the importance of not too rigidly restricting the diet. He thought that it would be almost criminal negligence for a physician to neglect to examine the urine for sugar in cases of extensive and persistent furunculosis. The same remark was also applicable to cases of pruritus vulvæ, in which the etiology was at all obscure. Dermatitis herpetiformis, a peculiar papular, pustular, and pemphigoid eruption, occurring mostly on the limbs, was now known to bear a particularly close relation to glycosuria.

CORRESPONDENCE

(From the BULLETIN'S Special Correspondents)

PHILADELPHIA LETTER

A stated meeting of the College of Physicians was held April 1, with Dr. J. M. DA COSTA in the chair.

Dr. WHARTON SINKLER read a paper on "Suppression of Urine without Uremic Symptoms." He said that uremia only occurred in cases where the kidneys were diseased and not where they were healthy, although there might be no urine passed. This is probably due to some changes occurring in the blood as it passes through the kidney. He gave as causes of suppression renal calculi, tumors, scarlet fever, hysteria, etc. He had seen two cases; the first he reported in '88. In this case there was total suppression for six days; the child had scarlet fever and did not recover. The second case suffered with indigestion, and when saving a specimen of urine for examination he noticed for the first time that it was bloody. The case was sent south and returned with a pain in the right iliac fossa. He was examined by a surgeon, and operation was not considered advisable, as he was not strong. For nine and a half days he did not pass any urine; only bloody water was passed one day, in all 16 oz., which gave no evidence of urine. He vomited a great deal; bowels moved two to four times a day; skin was not very active, and the perspiration had no odor of urine. The first urine was drawn with a catheter, and was found to be 16 oz., acid, 1010, urea, 1 per cent., and otherwise negative. He became paralyzed and died. The post-mortem showed that the left kidney was filled with small abscesses, and there was a stone in the ureter, with two more

in the pelvis. On microscopical examination the size of kidney was due to round-cell sarcoma. The right kidney was normal and there were no stones.

Dr. HENRY said that the occurrence of paralysis in kidney disease was not rare. In cases where one kidney is obstructed the other does not secrete very much. He thought that the reason that there was no uremia in obstruction was that the substance causing it was changed by the healthy kidney. A case may live with suppression for 10 days.

Dr. C. B. PENROSE: "The Presentation of an Unusual Temperature-chart." He had performed a hysterectomy, and the patient seemed well and comfortable until the fourth day, when she had a cough and expectorated rusty sputa. The temperature rose gradually and she became stupid and sluggish, with headache. Just before death the temperature taken in the rectum was 109.5°. Post-mortem showed nothing wrong except congestion of the lungs. There were no evidences at all of sepsis.

Dr. J. M. DA COSTA read a paper "On the Hypodermic Use of Iron." He had used the ferrous manganese citrate (Merck's) with good effect, and without an abscess. Only once did the tissue at the site of injection become inflamed. He used a solution of 1 grn. to 5 drops, and injected 15 drops once a day, and in one case he used two injections, giving 5 grn. a day. He used careful antiseptic precautions as regards the syringe and the surface at point of injection. In all the cases there was marked improvement. In one case of aggravated anemia the red corpuscles were 2,700,000; hemoglobin, 26; white corpuscles decreased. Under the injections of iron and with good food there was increase of white corpuscles, hemoglobin 50, and red corpuscles 4,000,000. There was no diminution in the size of the spleen in this case when he left the hospital. Before using this preparation he had used the ammonio-citrate as being a less irritating preparation of iron. The indications for hypodermic injections of iron were after exhaustive hemorrhages, anemia, ulcer of stomach, and in any case where the effect of iron is needed at once. He had made a solution of the peptonate of iron, but it was not considered very good.

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A stated meeting of the Obstetrical Society was held April 2, Dr. E. E. MONTGOMERY in the chair.

The secretary read a communication from Dr. G. COROMILAS, of Calamata, Greece, on the "Technique of Dilatation of the Perineum in Labor." He placed the patient on the left side or back, and after thorough antisepsis of his hands, and the vagina and labia of the patient, he anointed his hand with vaselin 50 gme., cocaine 3 gme., and antipyrine 5 gme., and applied it with a circular movement to vagina and cervix. This he claims hastens labor and prevents tears of the perineum. He reported four cases where it was tried with success; three were multiparæ, and one a primipara.

Dr. G. B. MASSEY reported a case treated by electricity in '88 for fibroid tumor of the uterus. She was 40 years old and had suffered from hemorrhages. The tumor was as large as an adult head; it was intramural on the left side. He had used Apostoli's method with carbon electrodes, using 200 to 300 milliampères, making application three times a week, as the patient wanted to leave the city. The flow was first aggravated and then almost stopped, when she left, against his wishes, at the end of six weeks. He did not hear of the case again until the other day, when he received a letter saying she was perfectly well and had reached the menopause. After she left, the tumor sloughed, and for a month the odor was very bad and she had high fever.

Dr. MONTGOMERY said he had seen two cases that had received electric treatment followed by epithelioma, and thought that it might be due to the irritation.

Dr. NOBLE thought the cure in this case was accidental, and not due to the electrical treatment. Large fibroids often sloughed, as in cases where ergot was given for some time. He thought that surgical interference was safer and more comfortable for the patient.

Dr. MASSEY said that this was the only case, except one other, where sloughing had occurred after electrical treatment in his practice. He did not think that the epithelioma was due to electricity, as it allayed irritation, and would not cause it if properly applied.

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Dr. ALBERT P. BRUBAKER has been elected adjunct professor of hygiene at the Jefferson Medical College. He had been demonstrator of physiology in the college for some time.

CANADA LETTER

LONDON, CANADA, April 6, 1896.

NEW HOSPITAL IN WEST TORONTO.—The physicians of Toronto, outside the hospital staff, have heretofore suffered under a grievance in not having the privilege of retaining the right of attendance upon private patients sent by them to the General Hospital. A movement to redress this hardship has been on foot for some time, and has now taken the form of the establishment of a new hospital in West Toronto. It is situated on Manning avenue and consists of two commodious houses, comfortably and suitably furnished. At present it is in charge of a lady superintendent and a staff of trained nurses. It is open to the entire profession, and every physician sending a patient to the hospital retains the right of attendance. The liberal basis upon which it has been organized will doubtless insure for the new hospital an extensive patronage.

* * *

MEDICAL EDUCATION IN ONTARIO.—An important meeting of representatives of all the medical colleges in Ontario, excepting the medical faculty of the Western (London) University, was recently held in Toronto to consider matters pertaining to medical education. The question of extending the winter session from six to eight months was considered, and those present thought such a change would be beneficial. The work demanded from students now is much greater than it was a few years ago, and as a consequence the extra hours required for the laboratory, lecture-room, and hospital instruction leave insufficient time for reading and mental digestion. The committee also suggests that a change should be made in the requirements of the Ontario Medical Council, which now demands a course of four winter sessions of six months each, one summer session of three months, and a fifth year spent in study in a laboratory or hospital. The committee thinks that four continuous sessions of eight months each would be more satisfactory. It is also proposed to raise the fees to \$100 a session, not including certain laboratory or special class fees, which would be extra.

* * *

A CONSUMPTION HOSPITAL.—An application is before the Dominion Government for the incorporation of "The Sanitarium Association," asking for power to equip and maintain a hospital for consumptives in the Muskoka District, Ontario. The late

Mr. H. A. MASSEY bequeathed \$25,000 to this object. Among its promoters are Sir DONALD SMITH, Chief Justice MEREDITH, Hon. G. W. ROSS, Minister of Education for Ontario; Dr. NEWTON A. POWELL, of Ottawa; and other prominent citizens. Muskoka is held by Canadian medical men to be unsurpassed on the continent as a health resort for consumptives.

* * *

ONTARIO MEDICAL ASSOCIATION.—The sixteenth annual meeting of this association will be held in Windsor, June 3 and 4, 1896. Dr. GRASSETT, of Toronto, president, and other officers associated with him have about completed their preparation of a program. The physicians of Windsor and vicinity will have charge of the other arrangements connected with the meeting. Western Ontario is certain to be well represented, and it is hoped that Toronto and Eastern Toronto will turn out in full force. Prominent visitors from the neighboring republic, as well as the sister-provinces, are expected to be in attendance.

* * *

THE ROSS MATRICULATION BILL.—A special committee meeting was held at the Legislature (Toronto) a few days ago for the purpose of giving the members of the Medical Council an opportunity to express themselves on Hon. G. W. ROSS's bill respecting matriculation in medicine. The purport of the bill is to make easier the matriculation examination in medicine. A large number of the Medical Council were present, and those who spoke opposed the bill on the ground that the standard of medical examinations should not be lowered, especially at a time when the profession is so much overcrowded. It was stated that there are at present 3000 medical men in Ontario, while there is not enough practice for one-half that number. Mr. ROSS was told that if the government did not wish to cripple the profession and tempt its members to engage in questionable practices for a livelihood, the bill should not be made law. It was also argued that the passage of the bill would be tantamount to the taking of the regulation of medical education out of the hands of the Medical Council and handing it over to the politicians. Dr. WILLOUGHBY, as a member of the Legislature, did not wish to clip the wings of the Medical Council, but in his opinion some attention must be paid to the feeling throughout the province, that the Council was endeavoring to make the passing of the matriculation examinations almost prohibitive. The bill was reported to the House, and it remains to be seen what action will finally be taken upon it.

* * *

Dr. BRYCE, the Ontario Provincial health officer, thinks the state of affairs in Windsor, referred to in my last letter, sufficiently serious to warrant him in making an investigation into the outbreak of typhoid fever, which, he has been informed, is due to the pollution of the water supply by sewage from the town of Walkerville. He learns that there have been between 150 and 200 cases of typhoid in Windsor.

* * *

Experiments have been commenced upon two patients in the Notre Dame Hospital, Montreal, with the new cure for erysipelas, anti-streptococci. It is reported that an immediate improvement was noticeable. The headache and vomiting stopped, and the temperature was much lowered.

* * *

Dr. F. R. ENGLAND, of Montreal, has been awarded \$1000 and costs in his action against KERRY, WAT-

SON & Co., wholesale druggists, for \$20,000 for the death of his wife, owing to a mistake in filling a prescription.

Guelph, Ont., will have to add a new wing to the hospital in order to accommodate applicants for admission.

Dr. JNO. CAMPBELL (M.D., McGill College, Montreal, 1869, and L.R.C.P. & S., Edin., 1882), has removed from Seaforth, Ont., and settled in Brooklyn, N.Y., where he bought out the residence and practice of Dr. A. J. McLEOD. Dr. CAMPBELL legally qualified himself for his new field of work by passing the New York State medical examination. He will be much missed in Canadian medical circles, as he was an active worker, not only in the medical association of his own county, but also in the Ontario and Dominion medical associations.

EDITOR'S NOTES

The Scarlet-fever Hospital Bill.—The New York City Scarlet-fever Hospital bill was passed by the Senate at Albany on the 2d inst. by a vote of 30 to 13.

Baltimore Hospital in Trouble.—The Maryland Hospital for the Treatment of Nervous Diseases is insolvent. A receivership has been granted on petition of two employes, who have long overdue claims for wages.

Diphtheria in Rhode Island.—The number of cases of diphtheria reported in the State of Rhode Island for the year 1895 was 386, the largest in 12 years, of which 79 proved fatal. The percentage of the death-rate generally has been greatly reduced below that of previous years.

The Objectionable Registration Clause.—The Brooklyn Medical Society has appointed a committee of five to draft resolutions calling upon the Legislature to abolish the present law regarding the registration of physicians, when called upon to perform service in an adjoining county. The law requires registration, at a cost of \$1.50, and this, they claim, is a hardship, and a proceeding entirely in the interest of the county clerks.

Pennsylvania's Diphtheria Scheme.—The Pennsylvania State Board of Health will extend to all physicians throughout the State like facilities to those enjoyed by medical men of its large cities where bacteriological examinations are made for physicians in suspected cases of diphtheria. The Post-office Department has authorized the use of the mails for transmission, and attending physicians can have a report of their cases within twenty-four hours from the time the physical examination is made.

Bellevue's Up-to-date Ambulance.—Probably the finest ambulance ever built in this country went into commission at Bellevue Hospital, New York, on March 30th. It is constructed on thoroughly sanitary principles, special care being taken to provide for speedy and thorough disinfection after use for contagious cases, and it has a new style of stretcher, for the placing and removal of a patient, that is in itself a marked improvement over those ordinarily in use. It has rubber tires, and weighs 1300 pounds.

Honorary Degree for Prof. Roentgen.—The Royal University of Würzburg has conferred the honorary degree of doctor of medicine on Prof. William Konrad Röntgen.

Bogus Doctor in Limbo.—The bogus doctor, recently sent to jail in New York, will serve the purpose of a good object-lesson to medical impostors, of which New York has its share, who are not behind the bars.

Right of Way Wanted.—Chester (Pa.) physicians are endeavoring to secure the passage of an ordinance similar to that passed in Chicago, Ill., allowing medical men the right of way on its thoroughfares when making professional calls.

Health in Des Moines, Iowa.—The Health Department of Des Moines, Iowa, reports 18 cases of contagious diseases during the month of March. Of that number 13 were diphtheria, 3 scarlet fever, and 1 each of measles and typhoid fever.

Typhoid at Marshalltown, Iowa.—An epidemic of typhoid fever prevails at Marshalltown, Iowa, which its Board of Health attributes to the water supply. Steps are being taken for a thorough investigation into the cause, and application of suitable remedial measures.

Wiping Out a Debt.—The McKeesport (Pa.) Hospital was erected two years ago at a cost of \$90,000. The first statement of its financial condition was issued on the 25th ultimo, showing that the trustees of the institution succeeded in wiping out \$70,500 of that amount, leaving an indebtedness of only \$19,500.

Dr. Paul Beck Goddard.—Through the courtesy of Mr. KINGSTON GODDARD the collection of portraits of eminent medical men at the College of Physicians and Surgeons, Philadelphia, Pa., will shortly be enriched by the addition of one of Dr. PAUL BECK GODDARD, who was a distinguished physician in that city 50 years ago.

A French Hospital Burned.—Neglect or carelessness on the part of workmen engaged in repairing the tower of the Gothic Church of St. Sauveur on the Boulevard du Maréchal Vaillant, at Lille, on the 29th ultimo, resulted in the total destruction of that building and the adjoining hospital, which bears the same name. Those of the convalescent patients who were able left the building as best they could, while attendants and others devoted themselves to removing those unable to help themselves. Four of the patients succumbed to fright and died before they could be taken out. Ten sappers engaged in removing the hospital stores drank what they supposed to be "schnapps," and were immediately seized with violent cramps, from which four died, and the rest are in a precarious condition.

Gift to a Wilmington Hospital.—The Delaware Hospital, of Wilmington, Del., recently received a gift of \$5,000 in cash from Mrs. LA MOTTE DU PONT, of that city.

Proposed Hospital for Pittston, Pa.—The city of Pittston is striving hard to secure funds sufficient to erect a hospital. The subscriptions thus far net a grand total of \$669.35, and the outlook is favorable.

Proposed Pay Hospital for Contagious Diseases.—The Woman's Health Protective Association and the County Medical Society, of Philadelphia, have issued an appeal to the public for contributions to erect a pay hospital for contagious diseases. The amount of \$2300 has been subscribed as a nucleus of the necessary fund.

Poughkeepsie Insane Hospital.—The twenty-ninth annual report of the Hudson River State Hospital for the Insane, at Poughkeepsie, shows that during the year the average population was 768 men, 715 women, a total of 1483, of whom 121 were discharged as recovered. The hospital is reported in good sanitary condition.

The Western Pennsylvania Hospital.—The managers of the Western Pennsylvania Hospital at Pittsburg have in contemplation the erection of a new medical and surgical department at the cost of about one million dollars. It is said over \$200,000 of that amount is already subscribed, and at least half of the desired amount is pledged.

New Hospital at Allegheny, Pa.—A charter was granted on the 28th ultimo for the erection of a new hospital at Allegheny, Pa., to be known as the St. John's General Hospital. The Board of Directors consists of WILLIAM J. LANGFITT, WILLIAM T. BRADBERRY, HENRY J. SCHUH, HENRY BUHL, Jr., GOTTFRIED D. SIMEN, J. HENRY HESPENHEIDE, JAMES W. ARNOTT, Jr., W. H. CONNELLY, all of Allegheny, and ALEXANDER HAMILTON, of Bellevue.

The Manhattan Eye and Ear Hospital.—The Twenty-sixth Annual Report of the Manhattan Eye and Ear Hospital shows the number of new patients received into the hospital last year was 18,960, and the total number since the institution opened was 196,859. Of the patients treated last year, 2609 were under nine years of age. The statistics show the religion of patients to be as follows: Roman Catholics, 10,275; Protestant, 7,070; Hebrews, 1537; and Agnostic, 78.

The Cleveland City Hospital.—The annual report of the staff of Cleveland's City Hospital was submitted on the 23d ultimo. It shows that 4563 new prescriptions and 15,881 renewals were filed. The number of chemical and bacteriological analyses made was respectively 1474 and 225. Two hundred and sixteen operations were performed, and in 96 cases anesthetics were administered. There were 7795 surgical dressings and 624 histories of cases written. Patients to the number of 861 were cared for at the hospital. The staff recommends an increase of the laboratory facilities.

A Vacancy at Philadelphia Hospital.—The recent resignation of Dr. WHARTON SINKLER, neurologist on the medical staff of the Philadelphia Hospital, makes vacant a desirable position for which there are many candidates. The next meeting of the Department of Charities and Correction will be held on the 13th instant, and it is expected that the new incumbent will be selected from the following named gentlemen who have applied for the appointment: Dr. CHARLES W. BURR, who was graduated from the University in 1885, and is professor of nerve diseases at the Medico-Chirurgical Hospital; Dr. CHARLES S. POTTS, University, 1886, assistant of Dr. WOOD, professor of materia medica and clinical professor of nervous diseases; Dr. GUY

HINSDALE, University, 1881; and Dr. MAX H. BOCHROCH, Jefferson, 1881.

Mortuary Chapel for a Brooklyn Hospital.—A mortuary chapel is now in course of construction on the grounds of the Methodist Episcopal Hospital, Brooklyn, N. Y. On the first floor will be a chapel in which services for the dead may be said in the presence of friends and relatives. The autopsy rooms, operating and dissecting tables, together with a laboratory for pathological work, and a museum, will be on the second floor. The last report issued by this institution shows that more Catholics received treatment within its walls during the past year than Methodists, Lutherans, Baptists, or Presbyterians.

The Polhemus Clinic Memorial.—The building of the proposed memorial to the late HENRY D. POLHEMUS, of Brooklyn, N. Y., will soon be begun. The structure will be an imposing one, seven stories high, the first two of which will be built of Indiana limestone, and those above of mottled brick, with limestone and light terra-cotta used for quoins, cornices, trimmings for windows, etc. The site will be on the corner of Henry and Amity streets, Brooklyn, and this, together with the cost of erection of the structure complete, will probably involve an outlay of upward of half a million dollars—the largest individual charitable contribution ever made to that city. Mrs. CAROLINE H. POLHEMUS will erect the building as an adjunct to the Long Island College Hospital, and as a memorial to her late husband, who was for many years actively identified with the work of that institution.

Cancer Removed.—"Dr. ——— removed a cancer this morning from under the left eye of Mr. ———, of No. ——— street, after a treatment of about two weeks, with his celebrated vegetable plaster. This makes 105 cases that he has successfully treated without inflicting much pain on the patient, and, what is more, the wound healed up in each case so as to leave a comparatively small scar. Such a record of successful treatment should commend Dr. ——— to any who are afflicted with cancers or tumors, particularly as his charges are very moderate. He went to-day to ——— and ———, N. J., at each of which places he has two cases, and expects to report favorable results in a short time."—*Daily paper.*

In the face of such marvelous results from "vegetable plasters" in the hands of "irregulars," what fools these regulars be to dissipate valuable time and energy in pursuing so-called scientific methods! If New Jersey does not properly care for Dr. ———, New York city will in case he endeavors to "vegetate" here!

Pure Water for Elmira.—The Board of Health of Elmira, N. Y., has given the Elmira Water-works Company sixty days in which to furnish the city with pure and wholesome water. The present bad condition of the health of that city is attributed to the water supply, which has been reported wholly unfit for use. The process of sand filtration has been suggested as a means to overcome the present condition of the supply, and it has been largely indorsed. While that process is a good one for temporary use, we are inclined to believe that a permanent construction or system of the kind would serve only for the accumulation of organic and other matter of a

deleterious nature, and thereby aggravate rather than remove the cause of the trouble. We are cognizant of the fact that the process of sand filtration is in use in London, Berlin, Hamburg, Poughkeepsie, Lawrence, Mass., etc., but these places have facilities for the disposition of the accumulated organic matter, which Elmira has not, and good results cannot be obtained where a periodical practice of cleaning and purification is not followed.

An argument in favor of sand filtration is the existence and growth of such water-plants as *Chara* and *Protococcus*, which yield oxygen freely and thus oxidize the organic matter present; but the probabilities are that the unnatural amount of organic matter present would favor other varieties, offsetting the production of natural constituents and rendering the water unfit for use, by reason of the presence of an excess of decayed organic matter.

The filtration process is a good temporary measure, but does not satisfy the needs of Elmira for permanence, and steps should be taken before very warm weather for a better supply.

"What Will He Do with It?"—Under the rules of the State Asylum, each patient transferred from the hospital to the asylum must have an entire outfit of new clothing, the total cost of which is about seventeen dollars. When the patient arrives at Ward's Island he immediately dons the State hospital dress, and the suit is turned over to the warden. The law makes no provision for the disposal of the new clothes, and they cannot be used for others. The problem for the warden is, "What will he do with it?"

All but Forgotten.—Dr. SNOW, to whom England is under a lasting debt of gratitude for his labors in the field of mycology, is almost entirely forgotten by his colleagues in that country. In commenting upon this fact Sir RICHARD QUAIN recently said: "Dr. SNOW made us masters of the deadly plague of cholera. He thereby saved millions of lives. The sole reward which England has conferred upon him is midnight obscurity. If he had been a soldier," he continued, "instead of a doctor, if he had slain his thousands, instead of saving his millions, every town would have hailed him as a hero, and the nation would have honored his memory with monuments more enduring than brass."

From 1503, when cholera was first recognized as a distinct disease due to some specific agent, up to the present time, many theories have been advanced as to its etiology and pathology.

Dr. SNOW's observations, however, stamped cholera as one which chiefly involved the mucous membrane of the alimentary canal, while KOCH's discovery of the specific comma bacillus clearly elucidated the etiology of cholera.

According to SNOW, the methods of propagation of cholera are four in number:

- (1) Moist excreta on bedding and clothes of infected persons may be carried by the vapor of water and enter the nostrils and mouth, and be swallowed.
 - (2) Dry excreta on infected clothing may be wafted a short distance by the air when the clothing is moved or unfolded.
 - (3) Nurses and those who attend the sick may introduce the poison into the system by not washing their hands before taking food.
 - (4) Utensils used by the sick, and not properly cleansed, may also contain the germs of the disease.
- Dr. SNOW failed to ascertain the exact nature of the infecting agent, but he did an incalculable ser-

vice to medicine the world over when he stated his belief of the manner of its action and dissemination.

American Laryngological, Rhinological, and Otological Society.—The following is the list of papers to be read at the second annual meeting, New York city, April 17 and 18, 1896, at the Academy of Medicine, 17 West Forty-third street:

"The Diagnostic Value of Ophthalmoscopic Examination in Cerebral Disease Depending upon Affections of the Ear," THOMAS R. POOLEY. "A Contribution to the Study of Laryngeal Vertigo," A. C. GETCHELL. "Report and Exhibition of a Case of Unusual Speech Defect," G. HUDSON MAKUEN. "Practical Experience with Autopsy of the Larynx and of the Trachea," M. THORNER. "Otitis Media Suppurativa with an Unusual Perforation of the Mastoid," E. E. HOLT. "Cancer of the Tonsil and Tongue, with Report of Four Cases," T. C. EVANS. "The Report of a Case of Hemorrhage from External Auditory Canal," C. W. RICHARDSON. "Chronic Suppurative Inflammation of the Tympanic Cavity," S. MACCUEEN SMITH. "Etiology, Symptoms, and Treatment of Rhinoliths, with Report of a Case," W. SCHEPPEGRELL. "A Case of Rhinopharyngeal Fibroma with Projections Extending to the Orifice of both Anterior Nares," HANAU W. LOEB. "Pharyngeal Tuberculosis," ROBERT LEVY. "Diphtheria of the Naso-pharynx," WALTER J. FREEMAN. "Report of Cases," J. E. SCHADLE. "Pharyngeal and Laryngeal Neuroses," JAS. E. LOGAN. "Surgical Anatomy of the Mastoid," G. E. BREWER. "A Study of Three Hundred Cases of Ear Diseases," WENDELL C. PHILLIPS. "When Adenoids and Polypi are the Chief Causes of Bronchial Asthma and Hay Fever," ARTHUR G. HOBBS. "Otitis Media Catarrhalis Chronica, with a Report of a New Instrument Facilitating the Treatment," JOSEPH E. WILLETTS. "A Contribution to the Study of the Diseases of the Accessory Nasal Sinuses," JOHN R. WINSLOW. "Diseases and Treatment of the Nasal Accessory Sinuses, with an Analytical Report," ROBERT C. MYLES. "Case of Angio-Neurotic Edema of the Larynx, with Remarks," DUNBAR ROY. "Edema of the Larynx," O. B. DOUGLAS. "Acute Otitis Media as a Complication of Typhoid Fever," D. A. HENGST. "The Mastoid and Intracranial Complication of Middle Ear Suppuration," E. B. DENCH. "Report of a Case," HOWARD S. STRAIGHT.

Fealty and Loyalty.—A BULLETIN subscriber writes to us as follows:

"To the Editor of the A. M.-S. BULLETIN: Your excellent editorial remarks in this week's BULLETIN on the subject of 'Fealty and Loyalty among Medical Men' prompts me to ask you a question which, in my mind, has important bearing 'on the obligations of physicians to one another.' Suppose a physician was sued by a blackmailing individual for a fabulous sum to cover alleged permanent injuries resulting from alleged assault and battery. Suppose that at the request of the defendant's attorney, the court appoints a medical man to examine the damaged patient, and report the result to a referee. Now, this examining physician, knowing, upon being informed, that the fee for the examination must be paid by his accused colleague, has he an ethical justification to demand and insist on payment for services? Your answer and decision will be thoroughly appreciated."

[The answer to our esteemed correspondent's

question is plainly as follows: The court having appointed the physician to examine the patient, it was the business of the court to see that the physician was paid. As the BULLETIN has repeatedly claimed, "the laborer is worthy of his hire," even though he be a medical man. No physician is obliged, under the law of the land, to render expert services by direction of a court without being remunerated by the appointing power. If the examining physician is informed that his fee is to be paid, or must be paid, by his accused colleague, it is the opinion of the BULLETIN that he should have declined to render services unless he were willing so to do without charge to his colleague. We are aware that this is a burden on the time and a tax on the talent of the expert, but the BULLETIN is nevertheless firm in its opinion that if medical men will not stand by one another in the spirit of loyalty and of fealty, then God help the profession! Even the blind can see that medical men are subject to outrage from without and from within, because they do not stand together for the good and the succor of one another.—ED.]

New York Neurological Society.—At the annual meeting of the New York Neurological Society, held at the Academy of Medicine on Tuesday, April 7, 1896, the following officers were elected for the ensuing year:

President, Dr. B. SACHS; first vice-president, Dr. C. A. HERTER; second vice-president, Dr. F. PETERSON; recording secretary, Dr. JOSEPH COLLINS; corresponding secretary, Dr. W. P. WILKIN; treasurer, Dr. G. M. HAMMOND; councillors, Drs. G. W. JACOBY, C. L. DANA, M. A. STARR, W. M. LESZYSKY, E. D. FISHER.

Army Items.—The following named officers have been ordered to report in person to Lieutenant-Colonel Charles R. Greenleaf, Deputy Surgeon-General, president of the examining board appointed to meet at San Francisco, Cal., on Tuesday, April 14, 1896, at 10 o'clock, for examination as to fitness for promotion: First Lieutenant Merritte W. Ireland, assistant surgeon. First Lieutenant Benjamin Brooke, assistant surgeon. First Lieutenant George M. Wells, assistant surgeon.

Leave of absence for two months, with permission to apply for an extension of two months, has been granted Major Curtis E. Price, surgeon, Fort Sill, Indian Territory.

Captain Francis J. Ives, assistant surgeon, has been relieved from duty at Plattsburg Barracks, New York, and ordered to St. Francis Barracks, Florida, for duty at that station, relieving Major Daniel G. Caldwell, surgeon.

By direction of the President, Major Daniel G. Caldwell, surgeon, on being relieved from duty at St. Francis Barracks, Florida, will report in person to the president of the Army Retiring Board at Washington Barracks, D. C., for examination by the board.

Leave of absence for two months and fifteen days, with permission to go beyond sea, has been granted Captain Charles F. Mason, assistant surgeon U.S. Military Academy, West Point, N. Y.

Captain Philip G. Wares, assistant surgeon, now

on duty at Fort McPherson, Ga., has been ordered to report in person to the commanding officer Fort Monroe, Va., for temporary duty at that post.

Captain Adrian S. Polhemus, assistant surgeon, will be relieved from duty at Fort Douglas, Utah, upon the expiration of his present sick-leave of absence, and ordered to Fort Wingate, N. Mex., for duty.

First Lieut. Henry C. Fisher, assistant surgeon, has been relieved from duty at Fort Yates, N.D., and ordered to Plattsburg Barracks, New York, for duty.

First Lieutenant William F. Lippitt, Jr., assistant surgeon, has been ordered to report in person to Major Henry S. Turrill, surgeon, president of the examining board appointed to meet at Fort Riley, Kansas, on Tuesday, April 14, 1896, at 10 o'clock a.m., at such time as he may be required by the board, for examination as to his fitness for promotion.

Personal.—The Commissioner of Pensions has appointed Dr. H. F. MYERS examining surgeon of the Board of Pension Examiners at Lancaster, Pa., vice Dr. M. G. MATTER.

Dr. WILLIAM A. ALLEN has been appointed Health Officer at Flushing, L. I.

Dr. GEORGE W. WAGONER, the new mayor of Johnstown, Pa., recently resigned his position of secretary of the Board of Directors of Memorial Hospital, Johnstown, that he might be better able to devote his attention to the executive affairs of the city.

Dr. S. H. RALSTON has been appointed resident physician at the Allegheny County Home, at Woodville, Pa.

The medical staff of St. Joseph's Hospital at Yonkers, N. Y., has appointed Dr. J. H. CARVER physician in charge of the dispensary.

Dr. SIDNEY A. ROWE, for three years on the staff of Christ's Hospital, Jersey City Heights, N. J., and, for 18 months, resident physician, resigned on the 1st instant. He will be succeeded by Dr. PURDY.

Dr. WILLIAM E. HAYES has been appointed Health Officer of the town of Frankfort, N. Y.

Dr. C. E. TOWNSEND, of Newburgh, N. Y., has been appointed a member of the Board of Health of that city.

Dr. HENRY L. SIDEBOTHAM, of Philadelphia, Pa., has resigned the position of coroner's physician, which he has held for several years. He was graduated from Jefferson Medical College with the class of '86.

The Lebanon Hospital Association, situated at Westchester and Cauldwell avenues, has accepted the resignation of Dr. G. LIEBERMAN as superintendent, and selected Dr. BLUM, of Los Angeles, Cal., as his successor.

Dr. H. Y. HARTMANN has been reappointed outdoor physician to the almshouse at Pottsville, Pa., for the sixteenth consecutive year.

Dr. C. H. LAVINDER, of Norfolk, Va., will succeed Dr. J. N. CLARE as house surgeon to St. Vincent's Hospital, Norfolk.

Dr. THOMAS RICHARD FRASER, professor of materia medica in the University of Edinburgh, has been appointed medical adviser to the Prison Commissioners, vice Sir DOUGLAS MCLAGAN, resigned.

Dr. HENRY D. MILLER has been re-elected physician in charge at the Easton, Pa., Hospital. He

was graduated from the University of Pennsylvania with the class of '81.

Dr. F. J. MANN has been appointed from the civil-service list as junior physician at the Hudson River State Hospital.

Obituary.—Dr. L. M. DE IESI died at Zacatecas, Mexico, on the 16th ultimo. He was graduated from Jefferson Medical College, Philadelphia. After graduation he was appointed a missionary to Mexico, and for many years he has been a successful physician at Zacatecas.

Dr. WILLIAM ANDERSON, one of Indiana's oldest practitioners, died on March 29.

Dr. JOHN A. HAWN, of Leavenworth, Ind., died at his home in that place on the 17th ultimo. He was graduated from the Louisville School of Medicine.

Dr. HENRY H. HOUSE, of Rockland Lake, N. Y., died at his home in that place on April 1. He was graduated from the University of the City of New York in 1863.

Dr. CHARLES S. CRANE, of Wisacky, S. C., died in that place on March 30, aged 72 years. He was graduated from the Medical College of the State of South Carolina in 1847.

Dr. JOSEPH S. GILLESPIE, of Chicamauga, Ga., died in that place on March 27. He was graduated from the Louisville (Ky.) Medical College, and was 75 years of age at his death.

Dr. RAYMOND AUGUSTUS PLAUK, of Altoona, Pa., died at that place on the 27th ultimo. He was graduated from the College of Physicians and Surgeons in the city of Baltimore, Md., with the class of '92.

Dr. SAMUEL R. KEELER, one of the most prominent physicians of Goodville, Pa., died at that place on the 2d instant. He was born in Montgomery County and was graduated from Jefferson Medical College 33 years ago.

Dr. WILLIAM F. LACEY, one of the oldest physicians in Connecticut, died at his home in Danbury on March 31. His father and grandfather were doctors, and two of his brothers belong to the medical profession. He was graduated from Yale Medical School with the class of '44, and began practice as a physician at the age of 20 years.

Dr. JOHN STERLING, of Philadelphia, Pa., died in that place on April 6. He was graduated from the University of Pennsylvania in 1856.

Dr. WILLIAM G. SPENCER, assistant surgeon United States Army, retired, died in Nashville, Tenn., March 27. He was graduated from Jefferson Medical College.

Dr. A. W. BOSWORTH, of Chicago, Ill., died in that city April 3. He was graduated from Rush Medical College in 1869, and at the time of his death was chief surgeon of the western division of the Lake Shore and Michigan Southern Railroad.

Dr. SAMUEL R. KEELER, a prominent physician of Lancaster County, Pa., died at his home in Goodville, Pa., on April 1. He was graduated from Jefferson Medical College, Philadelphia.

Dr. VULLIET, professor of obstetrics and gynecology in the University of Geneva, who had been nominated as president of the International Congress of Gynecology and Obstetrics to be held at that place in September next, is dead.

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OZONE IN SCHOOLROOMS

IT is a somewhat remarkable fact that ozone, which can be generated by means of the electric current with comparative economy and cheapness, has not been put to more extensive use for sanitary and prophylactic purposes. Its extraordinary germicidal power has long been known and recognized by the profession.

We recommend the seashore, the forest, and mountain regions to the anemic and many others whose health is below par, because of the ozone abounding in these localities. In crowded cities, ozone is usually absent. Our patients return from their sojourn with increased health and vigor, only to live again in an atmosphere vitiated and more or less detrimental to their well-being.

That it is the duty of the State to conserve the health of its subjects is a commonplace; that, in some instances, this duty, from a prophylactic standpoint, is glaringly neglected and violated is also trite. We need but mention the crowding together, for hours daily, of from thirty to sixty children in a close schoolroom. Proper ventilation in many of the rooms is out of the question. Opening of the windows admits cold air, only to chill the scholars; opening the doors may disturb the other classes;—at best, either way is but poor ventilation. In stuffy, ill-lighted rooms, and in wet weather, with “steaming” clothes, the children breathe and re-breathe the vitiated atmosphere. Soon, as teachers have often remarked, the pupils become inattentive, listless, sleepy, and complain of headaches; as soon as school is dismissed and the open air is reached, these symptoms disappear. A glance at the pale faces in a schoolroom would convince the most skeptical of the vicious results of a lack of proper ventilation. That many children become the vic-

tims of disease as the result of the invasion of germs of various infectious and contagious diseases while at school is only too well known. Our Health Department is continually confronted with this fact and its efforts are constantly directed toward attempting to remedy the evil.

Ozone-laden air contains a minimum number of bacteria; in its absence germ-life flourishes. To the remarkable diminution of ozone in the air during the summer of 1889 Professor FALB was led to attribute the influenza epidemic. Other observers, such as COOK in Bombay in 1866, SMALLWOOD in Canada, and BOECKEL in Strassburg, observed a decrease and even an absence of ozone in the atmosphere during cholera epidemics. ONIMUS, from observations made in 1883, shows an “absolute and direct relation between the ozonometric conditions and the intensity of the epidemic.”

If country air, containing, as it does, appreciable quantities of ozone, is beneficial to our patients, why not bring a similar condition to bear upon our school-children while herded together in insani-
tary rooms? If it is the duty of the State to guard the health of its citizens, it is certainly also an imperative and pressing obligation to protect its children from deleterious surroundings in order that they may develop into strong and vigorous subjects. With a knowledge of these facts, why should not the proper authorities have ozone, in sufficient quantity, introduced into the air of the schoolrooms? This germ-destroying gas can be easily and readily generated by the electric current. With a dynamo on the premises, or a current from the street lines carried into the building, together with the proper apparatus, the schoolrooms—nay, the whole building—could be impregnated with this powerfully germicidal agent. This, we believe, could be done

with comparative cheapness. Even were the expense just short of prohibitive, the results achieved in improving the health of the scholars and diminishing the communicability of disease would stamp the procedure cheap at any figure. The ozonizing of schoolrooms and dwellings has more than once been suggested by the profession.

It is a significant fact that in one of the "babies' wards" of the New York Post-graduate Hospital, where an ozone-generating apparatus is used, only a few sporadic cases of contagious disease have developed; whereas, in the non-ozonized wards a considerable number, comparatively, of such cases have occurred.

The purification of ozone from noxious by-products is a question of minor chemical detail, and the methods of its introduction into the schoolrooms are matters of simple mechanics, neither of which need be dilated upon here. Were it impracticable or excessively expensive to force a current containing ozone into the rooms continuously during school hours, it could be turned on for half an hour or an hour just before the morning and afternoon sessions. This would give the occupants of the rooms a fresh, sweet, clean, and bacteria-free atmosphere to breathe, to say nothing of the pathogenic germs thereby destroyed.

THE QUESTION OF SHOCK AFTER ABDOMINAL SECTION

ABDOMINAL surgery has reached that stage where, other things equal, barring shock, recovery is the rule, and death is the exception. Aseptic technique has been so perfected that death from sepsis may be termed preventible, except where the patient is septic before operation. The high mortality in the past, traceable to hemorrhage, has to-day been lowered to a fraction of a per cent. Shock alone remains the surgical bugbear; and were the surgeon in a position to exclude this factor, abdominal section, in instances where circumstances preceding or attending the operation—such as deep septic infection, acute anemia—do not carry a grave prognosis, would not have a death-rate. The question, then, how to guard against shock, is the burning one to-day, and to answer this it is requisite to determine the nature of shock.

It is essential to differentiate sharply two forms of shock. Thus the impressionable individual may die of shock from the receipt of a slight injury, or indeed only a mental impression—such as suddenly told news of bad moment. Such an individual will die of shock where the blow suffered, for example, whether physical or psychical, is so slight as to

leave no mark on the body or in the system determinable by autopsy. Such shock we cannot guard against, and it is vastly different from that following surgical procedure, such as the opening of the abdominal cavity, with its associated bruising of nerves and blood-vessels and the necessary loss of blood. This latter form of shock is that which the surgeon must study how to prevent, and such knowledge is best applied where he is in possession of the causal factors at the bottom of shock. Prevention is alone possible where we know the cause, and thence can deduce the remedy.

At a meeting of the New York Obstetrical Society, held in January, this subject of shock was thoroughly discussed, the initiative being a paper on "The Pathology and Treatment of Surgical Shock," by Dr. EUGENE BOISE, of Grand Rapids, Mich. The author of the paper puts the question as to whether it is not probable that the pathology of surgical shock is in no sense a paresis of the nervous system, as has been usually claimed, but rather that it is an excessive irritation of the entire sympathetic nervous system, the result, chiefly, of an excessive stimulation of the vaso-motor nerves. After analyzing the various symptoms, which are the evidences of shock, BOISE concludes that they are the necessary consequences of general contraction of the arterioles, or of general vaso-motor irritation, and that they could not follow a vaso-motor paresis.

The primary and essential factor in producing surgical shock when the abdominal cavity is opened is an undue irritation of the terminal endings of the sympathetic system of nerves that are distributed to the peritoneum. This results in overstimulation of primary vaso-motor and cardio-innervating centers, at a time when nutritive activity is waning. This causes a primarily rapid and weak action of the heart. At the same time it excites an undue contraction of the walls of the arteriole and causes the blood to be rapidly driven over into the veins, which thereupon progressively expand, thus preventing the blood from returning to the arterial system as rapidly as it should. This change in the condition of the vascular system rapidly decreases the total volume of blood in the arterial vessels and causes an unusually large volume to accumulate in the veins. This abnormal condition of the circulatory apparatus, together with the rapid and imperfectly performed action of the heart, causes the blood to flow in smaller quantities and with greater speed through the arterial capillaries, at which point all nutritive interchange is affected. Consequently a rapidly developing state of malnutrition is produced, which,

together with the accumulation of an abnormally large volume of blood in the central veins and the marked volumetric decrease of blood in the arterial system, constitutes the abnormal condition of the physiological economy which is now regarded as the true pathology of shock. This, accomplished, the nervous system is more or less profoundly depressed and nerve innervation at a low ebb.

Such having been established, the corollary, as regards prevention and treatment, follows along determined therapeutic lines. Thus, nitrite of amyl employed in the early stages is a valuable agent in the treatment of shock, acting as a dilatant to the contracted arterioles, and, were it not for the evanescent effect of this drug, we would find it the best of all remedies. Again, nitroglycerine, which is so powerful a stimulant in the presence of shock, acts not by reason of its special direct effect on the heart, but because of its relaxing effect on the contracted arterioles; similarly opium and strychnine and heat, the great value of each of which is so well recognized, relieve shock through their undoubted influence in stimulating the depressed vaso-motor centers.

From such deductions Boise draws the following conclusions as regards the proper manner of treating surgical shock:

1. Inhalation of nitrite of amyl, not alone while the patient is on the operating-table, but repeated afterward at intervals.

2. The hypodermatic injection of nitroglycerine in large doses; that is to say, where this drug is indicated at all we must secure its full effect speedily, and in order to accomplish this the dose must be such as under ordinary conditions might be toxic. One-fifteenth to one-twentieth of a grain, repeated until the effect on the pulse is evident, should be the rule.

3. Repeated injections of hot saline solution, given by high enema so that the fluid will pass into the transverse colon, are most valuable adjuvants, not alone tending to relieve vaso-motor spasm, but also supplying to the circulation the fluid lost by hemorrhage during the operation.

4. Finally, hypodermatic injections of strychnine, in the dose of a fifteenth of a grain, assist markedly.

The sum-total of the entire argument is that, as a rule, the exact meaning of shock not being appreciated, valuable time is lost in the old methods of injections of whisky, or brandy, or camphor and ether, while the drugs which are really of service are neglected. Obviously, where the surgeon is not forced to do an abdominal operation in the presence of urgent symptoms, it should be his aim

to guard against shock by administering certain of these remedies beforehand. If a few days may be allowed to elapse before operation, it is questionable if the starving policy, too frequently resorted to, is allowable. The aim is to secure an empty intestinal canal, and the result is a weakened patient. If the intestinal canal has been trained to act normally, then it is a decided advantage, from the standpoint of guarding against shock, to feed the patient bountifully up to within twenty-four hours of the time set for operation, the food being of the kind which contains the most nourishment of an easily assimilable character, but the bowels should always be empty before operation.

Hypodermatic injections of strychnia, in the dosage of one-twentieth of a grain every four hours, will also place the patient in good condition to withstand shock. Immediately preceding operation a hypodermatic injection of an opiate may be given to advantage. If administered in large enough amount, the effect will not wear off until some time has elapsed after operation, so that not alone do we thus enable the system to withstand shock, but the patient, sleeping for a certain length of time afterward, is not so likely to suffer from anesthesia-vomiting, which of itself is a causal factor of post-operative shock.

Attention to these rules before operation will unquestionably do much toward preventing shock in the large proportion of cases. There remain, however, a not inconsiderable proportion of cases where the operation is necessarily of an emergency character, or else where the patient is in a condition of fairly acute anemia when the operative procedure is forced upon the surgeon. Often the patient is in a state of shock and the question which will force itself is, Shall I wait until the patient has rallied from shock, or shall I proceed to operate and thus add shock to shock? Such are instances where there is reason to suppose that rupture of the uterus has occurred, or where the symptomatology suggests the presence of intraperitoneal rupture of an ectopic gestation, or, probably worse than all, the overcharging of the system with the products of acute sepsis. It must be granted that in such cases the problem is a most difficult one to solve, and yet on speedy decision and on prompt action the life of the patient depends. There is little glory to be acquired from operating on a dying patient, and probably this thought unconsciously swerves our judgment against prompt operation.

But, considering the factors which may be present as the foundation of shock, it may be apparent that

the best way to rid the patient of shock is to operate, and thus allay the causal factor. Thus, in case of intraperitoneal bleeding, if this be not arrested, the patient will die, unless nature check the hemorrhage, as she often does, by throwing the patient into a condition of collapse. From such collapse, however, the patient rarely will rally, and, if he do, the very fact of rallying brings to life again the causal factor of the original shock, that is to say, the hemorrhage. However gloomy the outlook, it becomes the duty of the surgeon to open the abdomen at once, even in the presence of shock, and, by tying the bleeding point, to give the patient a chance to rally from the shock. Now, here rapidity of operating, associated with hot saline rectal and abdominal irrigation, is the *sine qua non* to success in a fair proportion of cases. Over-stimulation by hypodermatic injection of digitalis, whisky, brandy, or camphor and ether is to be rigidly avoided, since the only result is the production of more profuse hemorrhage. After the bleeding point has been tied, then is the time for resort to our habitual stimulants. Before operation they do harm, and our chief reliance should be on the hot saline irrigations, which make up the loss of blood, in addition to stimulating the peripheral ends of the centripetal nerves. Thus carrying an impulse to the central nervous system, which is then reflected back to the heart and vascular mechanism, improving the cardiac action and arterial tone with little or no danger of overstimulation.

Where the acute condition of shock is due to invasion of the system by toxic material, which profoundly depresses the nerve centers, the rule should be as absolute—to seek out the focus of septic infection and to remove it. Otherwise the sepsis simply deepens, and the outlook becomes gloomier. Indeed, the day will come when a proportion of septic cases now lost on account of indecision will be saved through speedy action of an operative nature, thus forestalling the profound shock, which is the constant associate of intense infection. Here again the adjuvant nature of hot saline injections should ever be borne in mind.

The sum-total of this whole question, evidently, is that as we recognize more fully the exact factors at work in the production and in the maintenance of shock, we will approximate a rational treatment, instead of resorting to the haphazard methods of indiscriminate and injudicious stimulation, which have carried weight in the past, and which, indeed, are still taught by high authority.

ORIGINAL CONTRIBUTIONS

CREMATION; INCINERATION; COMPLETION!

By WILLIAM OLIVER MOORE, M.D.

Professor of the Diseases of the Eye and Ear in the New York Post-graduate Medical School and Hospital, etc.

IN a recent editorial in the BULLETIN, "Interment and Cremation," certain facts are quoted from *Nature*, giving the results of Dr. LÖSENER's investigations of the soil in graveyards, which we think in the main are misleading, as he found that the germs of contagious diseases, with the exception of the anthrax coccus, lived only a short time, and that the surrounding soil was, as a rule, not contaminated. The exception, however, again proves the rule.

Medical literature is full of facts directly opposite to those of LÖSENER's.

During the epidemic of yellow fever in New Orleans in 1853, in one district the mortality was 452 per thousand cases, more than *double* that of any other. In this district were three large cemeteries in which during the previous year more than 3000 bodies had been buried. PASTEUR, when investigating an outbreak of splenic fever, which destroys thousands of sheep, learned that the cattle affected were pastured in fields where previous victims of this contagion had been buried. His examination resulted in the discovery that the bacteria had made their way from the buried bodies to the surface; they were found in swarms in the intestinal canal of earthworms.

FREIRE, of Rio Janeiro, in an epidemic of yellow fever, found, in the soil of a cemetery where more than a year before bodies dead from this disease had been placed, the earth alive with microbic organisms identical in every way with those in the blood of patients dying from yellow fever. These reports were considered so important that they were forwarded by consular officers to the Department of State at Washington and also to both Houses of Congress. Further, a healthy guinea-pig, whose blood was first found to be pure, was confined in a space in which some of the soil from this cemetery was placed; the animal died five days after, and the germs of yellow fever were found in the blood. The blood was then injected into the veins of a rabbit, followed by death in 15 minutes. This blood was found to contain the cocci, and several subsequent animals died as a result of similar experiments. Many more instances could be cited, and it may be stated without fear of contradiction that the burial of patients dying of contagious diseases is harmful to the living.

There should be a law compelling cremation of all so dying, just as much as there is a law regulating crime. No murderer wants to be hung, yet no sentiment prevails if he is proved guilty. Why, therefore, should sentiment step in to prevent incineration, and the living suffer the consequences? The American Medical Association in 1886 declared:

"We believe the horrid practice of earth-burial does more to propagate the germs of disease and death than do all man's ingenuity and ignorance in every other custom or habit."

What putrefaction accomplishes by inhumation in years—at the same time polluting the soil and water-courses—cremation produces in a few hours, perfectly and harmlessly. It is as old as the world, and was adopted by the most learned nations. It was the universal custom in the Bronze Age. Even the Hebrews resorted to this means, for King Saul and his sons were incinerated. In Italy cremation has been legal since 1877, and all through Europe are societies for the furtherance of this the most sanitary and scientific manner of disposing of the dead. Cremation was first performed scientifically in 1876 in the United States. Since then cremation furnaces have been built in several cities of this country. New York State has at least two in operation, one at Fresh Pond, just outside the corporate limits of Brooklyn, and one at the Quarantine station in New York harbor. The former is open to the public; the latter belongs to the State, for the incineration of those dying of contagious diseases.

New York was the first State to order by legislative act the erection of a crematory, when in 1888 it appropriated \$20,000 for the building and equipping a crematory on Swinburn Island, and the removal and disposition of bodies buried at Seguin's Point. The act directed the removal of the dead from Quarantine cemetery, and provided that the bodies should be "disposed of in such manner as will not endanger the public health." Three hundred corpses were incinerated and their ashes placed in a mortuary. The rule at Quarantine now is that those dying of contagious disease, not having expressed any wish against cremation, or whose friends do not object within twenty-four hours, are incinerated. It is to be regretted that the law is not such as to oblige all those dying in public institutions and who are not claimed by friends, to be cremated, instead of, as now, being buried in trenches four and five deep—at Hart's Island, where, in a space less than *six acres*, are buried over eighty thousand—the earth fairly reeking with all forms of cocci and germs.

The Board of Health of New York might better agitate this vital question than the one of the promiscuous use of knives and forks in public-houses, and the regulation of spitting in public vehicles.

Reasons urged against cremation are largely those of sentiment, but principally on religious grounds is it now objected to, there being some vague idea connecting it with the resurrection of the dead. If this objection holds good, what will the Christian Church do for saints, many of whom perished on the funeral pyre as martyrs? This objection is not an honest one. If it be, why do we see in Christian graveyards monuments with urns upon them, and frequently the torch depicted also? The only valid reason against cremation is in cases of suspected poisoning; the incineration having oc-

curred, all evidence is destroyed; this is, however, a remote contingency, as first a certificate of death has to be obtained, and this would act as a check in most cases.

TABLE SHOWING LOCATION, DATE OF OPENING, ETC., OF CREMATORIES IN UNITED STATES

Location	Date	Number Cremated	Residents	Non-residents	Male	Female	Number died Contagious Disease	Charges, Dollars
Washington, Pa.....	1876	58	1	37	20	9	....	....
Lancaster, Pa.....	1884	89	9	80	67	22	13	50
Fresh Pond, L. I., N. Y.....	1885	1554	....	1084	470	280	25 to 50	....
Buffalo, N. Y.....	1885	250	148	102	166	84	....	25
Pittsburg, Pa.....	1886	100	....	....	63	37	....	....
Cincinnati, O.....	1887	314	240	74	214	100	62	25
Detroit, Mich.....	1887	183	125	58	111	72	24	25
Los Angeles, Cal.....	1887	182	....	....	119	63	....	....
St. Louis, Mo.....	1888	437	340	97	300	137	....	25
Philadelphia, Pa.....	1888	399	300	99	264	135	26	35
Baltimore, Md.....	1889	84	....	....	57	27	....	40
Swinburn Island, N. Y.....	1889	100	....	....	....	109	....	....
Troy, N. Y.....	1890	56	....	....	37	19	....	....
Waterville, N. Y.....	1891	5	1	4	1	4	....	25
Davenport, Ia.....	1891	36	....	....	27	9	....	....
San Francisco, Cal.....	1893	200	....	....	112	88	3	60
Chicago, Ill.....	1893	87	60	27	54	33	1	25
Boston, Mass.....	1893	118	100	18	59	59	8	30
San Francisco, Cal.....	1895	28	....	....	18	10	....	....

Cremation must be ranked as one of the greatest hygienic improvements of a progressive age, says a great thinker. In the township of Newtown, Long Island, are to be found buried in the numerous cemeteries over twelve hundred and fifty thousand bodies. Is it a wonder then that Newtown should have almost the largest death-rate in the State?

How anyone who has witnessed the usual methods of inhumation can describe incineration offensive to the sensibilities we cannot imagine. There is absolutely *no odor*, as hinted at by the writer of the editorial referred to, and everything is done with the utmost solemnity. In the words of one who first witnessed cremation, "as we turned away from the retort where we had left the body of our friend, it was pleasant to think of him still resting in its rosy light, surrounded and enveloped by what seemed to us floods of purity." And thus it seemed to us on the various occasions that we have been present: perfect, pure, poetic. Let every physician who reads this visit a crematory and see for himself, advocate its more usual adoption among his friends, and express the wish that when his career is ended he too be purified by fire. The crematory at Fresh Pond, N. Y., a few minutes' ride from Brooklyn, is in operation daily, and by visiting it the most fastidious can have any foolish scruples allayed. To the very reason, that physicians have these erroneous impressions, is due the slow progress of incineration. Facilities for cremations have existed in the United States since 1876—twenty years. In 1893 there died in the United States 900,000 persons, of whom only 592 were incinerated. This slow progress is due to habit, custom, and the stupid prejudice of a blind orthodoxy. Let us, when we are through, go like Elijah in a fiery chariot. As we expect to be disposed of in this way, we are earnest and anxious that the merits of this method be fully understood; for cremation, incineration, completion will bring about truly the usual adieu to the body: Ashes to ashes, dust to dust!

New York ; 83 Madison avenue.

KINKING OR FLEXURE OF THE COMMON BILE DUCT PRODUCING OBSTRUCTION TO THE FLOW OF BILE INTO THE DUODENUM

By BYRON ROBINSON, M.D.

DR. BARRINGER and HENDERSON, of Iowa, sent me a patient—female, single, 24 years old—who had suffered from pain in the region of the gall-bladder five years. The last eighteen months to two years it was so severe that she lost some thirty pounds of flesh. The symptoms were so obscure in the case and her nervous system so unbalanced that I sent her to Dr. SANGER BROWN to learn the condition of the nervous system. Dr. BROWN announced no organic disease of the nervous system. No swelling or even distinctly painful point could be felt. In general, a little tenderness could be felt above the pylorus. She had never become jaundiced. Absolutely no swelling could be detected about the gall-bladder. But her pain was periodically intense in the gall-bladder region, demanding large doses of morphine. The pain came on suddenly and lasted from $\frac{1}{2}$ hour to 5 or 6 hours. For the last six months previous to the operation she could not attend her work.

Dr. LUCY WAITE and I operated by a median incision midway between the xiphoid cartilage and umbilicus. The introduced finger discovered a very small short gall-bladder almost full of gall-stones (some thirty, from the size of duck-shot to the size of a pea). The gall-bladder could not be drawn to the median line, so we made a lateral abdominal incision on the right side perpendicular to the median abdominal one. The gall-bladder was opened and all the gall-stones removed. None could be found in the ducts by carefully feeling and palpating them. The shortness of the gall-bladder was overcome by compressing the belly walls down to the fundus of the gall-bladder, then stitching the gall-bladder to the abdominal walls, and firmly holding the abdominal wall depressed by a large compress so that the stitches would not tear out.

The girl recovered in a few months and gained some thirty pounds of flesh. She was well for some six months. A month before her trouble renewed itself severely, Dr. BARRINGER eased her pain by reopening the old closed gall-bladder fistula and allowing the bile to freely discharge itself. This relieved her very much; however, she became pale, the stool was distinctly clay-colored, but so far as these matters were concerned she was fairly comfortable. After six months of post-operative life, she gradually began to have attacks of increasing periodical pain about the gall-bladder, lost flesh, and her pain demanded the old morphine relief again. The pain about the gall-bladder the second time differed from that previously experienced in being more dull, heavy, and constant. It lacked the acute maximum and minimum periodicity. The pain scarcely ever left her, and seven months after the operation

she again was compelled to give up her work as a bookkeeper.

She returned to Chicago and again I operated. This time Dr. FERGUSON associated himself with me in the operation. We first opened the gall-bladder and carefully searched it with finger and probed it with especially made sounds, but no stone was found. We now took a rubber bulb with a rounded, cone-pointed glass nozzle and filled it with warm sterilized water and forced this gently through the cystic and common bile duct into the duodenum. We gradually forced through seven syringefuls containing about one and one-half ounces each. This showed that the bile passages were patent, and, significantly, each and every syringe-ful went through equally well and easy. It does seem to me, after trying the probe on some living and quite a number of dead bodies, that a probe will not pass into the duodenum from the gall-bladder unless the ducts are in a pathologic condition—*i. e.*, dilated. I have never been able to pass a probe in a cadaver from the gall-bladder to the duodenum. We now freed the gall-bladder from its old numerous adhesions, and it was found to be elongated to some six inches. (It was originally, at the first operation, about two inches long.) It was freed entirely from the abdominal wall and its fundus stitched with silk to the abdominal wall and drained with a rubber tube.

In six weeks this patient has gained about thirty pounds. She is quite well and but very little bile has escaped from her wound. The wound has not yet healed, for the old wound became infected and the silk sutures used in the last operation to approximate the abdominal fascia suppurated and are all coming out. Pain has disappeared and she has again acquired a ruddy face.

Diagnosis.—Kinking of the common bile duct, with consequent obstruction to the flow of bile (incomplete). The cause of pain: excessive peristalsis of the bile ducts, especially the cystic and common bile duct.

The kinking in this case does not seem so strange when we consider that the gall-bladder was elongated from two to six inches. Besides, the fundus of the gall-bladder in the first operation was necessarily fastened to the abdominal wall far below its natural anatomical position. No evidence arose to induce us to believe that it was a stone in the duct.

A second case which showed kinking of the common bile duct occurred in an autopsy at Cook County Hospital in the service of Drs. BEESLY and WOOD. The autopsy was performed by Dr. EDWARDS, in which I was allowed the courtesy of carefully examining the abdominal viscera. The patient, a male, 35 years of age, died from symptoms of liver abscess. The body was intensely yellow. Careful investigations revealed multiple liver abscesses, largely distended gall-bladder, and a calculus in an ulcerated diverticle of the hepatic duct. By seizing the tensely distended gall-bladder and straightening it out bile could be gradually forced through the common bile

duct. Many enlarged retro-duodenal glands, with chronically inflamed and indurated adjacent tissue, must have been the factors in this case, which produced enough kinking of the common bile duct to produce sufficient partial obstruction to make a tensely filled gall-bladder.

These two cases are sufficiently similar to report, and from them we may conclude:

1. That enough kinking of the cystic or common bile duct can occur to produce pathologic obstruction.

2. That the kinking may be induced by fixing the fundus of the gall-bladder too low on the abdominal wall, and that when it elongates it may result in an acute pathologic kink.

3. That by enlarged adjacent glands and indurated adjacent tissue resulting in cicatricial contraction, pathologic kinking of the cystic or common bile duct may be induced. By pathologic obstruction I mean sufficient narrowing of the lumen of the duct to result in obstructing flow of the bile.

4. That jaundice may not result from this partial pathologic obstruction due to kinking.

5. That a probe will not pass from the gall-bladder into the duodenum if there is no pathologic condition of the duct—*i.e.*, no dilatation.

6. That the best medium to test the patency of the gall-ducts through the gall-bladder into the duodenum is a syringe with water and not a probe. (The best form of syringe is a rubber bulb on which is fastened a blunt, cone-pointed nozzle to fit the cone-shaped gall-bladder neck.)

7. In any operation on the gall-bladder requiring opening of the bladder, the fundus should be fixed as high as possible, and as little of the fundus of the bladder attached to the abdominal wall as possible, to avoid many adhesions.

8. It has been suggested by Dr. A. H. FERGUSON, and it accords with my experience, that the fundus of the gall-bladder should not be sutured to the skin, but to the sub-dermal tissue, for the reason that, if the skin and mucous membrane of the gall-bladder once become continuous, the resulting fistula may remain indefinitely.

9. In post-operative procedures on the gall-bladder with symptoms of duct obstruction, the fundus of the bladder should be completely freed and, if thought best, the aperture in the gall-bladder completely closed and dropped back into the abdomen with complete abdominal closure in non-septic cases.

10. In operating on the gall-bladder in cases where it is too short to reach to the abdominal wall to drain its contents, one can resort to three measures, *viz.*: (a) Force the abdominal walls downward to meet the fundus of the gall-bladder, fixing them in position by a large compress. (b) Make a peritoneal channel from the parietal peritoneum and visceral peritoneum so that the bile will be conducted to the external world through a peritoneal canal or cuff, and (c) pack with gauze from the neck of the gall-bladder around the bladder itself and finally to the abdominal wound, so that the gauze packing will

soon make a circumscribed channel of plastic exudate, securely walling off the adjacent viscera. The gauze should not be removed for from three to seven days, when the plastic channel, reaching from the incision in the gall-bladder to the abdominal wall, is perfectly and safely established.

11. Quite a number of cases, the subjects of gall-stone, have taught me the significant lesson that when a patient suffers occasionally with pain about the gall-bladder, periodic pain occasioned by hot foods and drinking hot or stimulating fluids, pain due, no doubt, to excessive peristalsis of ducts, such patients are subjects of gall-stones. If the pain occur in post-operative cases, kinking must also be thought of. The worst cases are those possessed of quite small stones, which will partially engage the mouth of the cystic duct sufficient to stick there for some time, inducing agonizing peristalsis (colic) of the bile ducts, until peristalsis becomes so excessive that the small stones glide out, fall back, or turn around, or the position of the patient induces them to drop out, or respiratory movements of the diaphragm force them to another position.

Chicago; 34 Washington street.

THE RELATION OF OPHTHALMOLOGY TO CERTAIN OF THE GENERAL DISEASES*

By COLMAN W. CUTLER, M.D.

Consulting Ophthalmologist to Randall's Island Hospital

IT is a common remark that ophthalmology is the most exclusive of specialties. It may be too wide or too small for general interest, but it does not stand apart, and should not, in many respects, be outside the notice of the general practitioner.

It is perhaps because busy students, and, later, busier doctors, have not had time to master the technical obstacles that seem to stand in the way, that men generally profess to know so little about it, and textbooks as a rule put so little stress on many points concerning the eye which are of value in their relations to general disease. For the diagnosis and treatment of diseases purely ocular, a special preparation may be needed. The use of the ophthalmoscope is perhaps too much to ask, although students now fare better than we did. For though easy to learn, it is not so easy to keep a facility with this instrument without some practice.

However, the diagnosis of glaucoma, the signs and significance of iritis, and some of the diseases of the conjunctiva and cornea, also the disturbance of the functions of the eye in its relation to the brain, the diplopias, hemianopsias, etc., are important. I believe it is common, when a patient comes with some eye symptom which is not visibly explainable, to consider what oculist to send him to rather than that it may mean something quite within the scope of the general practitioner.

I have taken, then, four common diseases—nephritis and diabetes, syphilis and tuberculosis—in the hope that some points of interest may be suggested

* Read before the Therapeutic Club of New York, March 21, 1896.

or light from an unaccustomed point of view be thrown on old subjects.

Nephritis and Diabetes.—The eye is affected only in subacute or chronic nephritis—except in the exanthemata and pregnancy, to which reference will be made later—oftenest in the granular form, rarely in lardaceous kidney. In a few cases of so-called functional disease, retinal changes have been observed. A curious coincidence has been reported in a few cases where, contrary to the rule that both eyes are affected, the lesion was unilateral, following disease of the kidney of the same side; this has been supposed to indicate the influence of reflex nervous impressions.

Retinitis occurs in about twenty per cent. of all cases of chronic nephritis. Usually it begins in the later stages of the kidney disease, but I have been able to find, in a hasty review of the subject, references to 32 cases where there was no albuminuria. A case related by GOWERS will serve as an example—a lady of 57, hemiplegic, with perfect degenerative retinitis albuminurica of both eyes, hypertrophy of the heart, with strong second sound and high tension. Repeated careful examination of the urine failed to reveal a trace of albumin, and the specific gravity was not low.

The prognosis is grave, the duration of life after the appearance of the retinitis is given, as a rule, as from one to two years at the most, although in some cases the disease comes to a standstill, as it does in the kidneys, and the ophthalmoscopic appearances may in great part disappear.

The one subjective symptom of the retinitis is loss of vision. This amblyopia increases as the disease advances, gradually or suddenly as the integrity of the retina is affected by hemorrhages or varied by the amaurosis of uremia. The vision is never completely lost from the retinitis, but in the uremic attacks there is blindness lasting from 12 to 36 hours; this is quite independent of the retinitis, and may occur with no visible lesion in the eye.

Lead-poisoning may give the exact picture of retinitis albuminurica, and the sudden blindness as well. Even when there is no nephritis, the direct action of lead on the tissues is supposed to be the cause.

The amblyopia of pregnancy does not receive proper attention in the textbooks of obstetrics. SILEX, in a recent article in the *Berliner klinische Wochenschrift*, emphasizes its importance and gives his views, based on seven years' observation of the material in the Berlin Obstetrical and Ophthalmological Clinics. The diminution of vision, like the albuminuria, comes on gradually in the course of weeks and months, oftenest in primiparæ and in the second half of pregnancy. Recurrences are apt to follow in later pregnancies.

The statistics of the occurrence of the albuminuria vary from 1 to 20 per cent. of pregnant women, and the retinal affection occurs in 1 case in 3000. This must be a very low estimate, as only the severe cases are seen by the oculist, many lighter ones passing unnoticed; perhaps leaving more or less

impaired vision, which, later, may be difficult to trace to its true cause.

The course of the disease is subacute when it begins in the second half of pregnancy, acute when near the end. The prognosis of the retinitis depends on the form of the nephritis being worst when the latter is or becomes chronic. Of course the previous existence of an unsuspected subacute or chronic nephritis must be borne in mind.

In the simple parenchymatous nephritis vision may return to the normal. SILEX says, however, that a return to the normal is only to be expected when pregnancy is ended spontaneously or artificially as soon as possible after the vision begins to diminish; of these he has three cases. In two others, by a delay of four weeks to the normal end of pregnancy, vision fell to two-thirds. Of 16 cases in which interference was postponed, and which were kept under observation for a long time, the vision fell to $\frac{1}{2}$ in 6, to $\frac{1}{3}$ in 2, $\frac{1}{4}$ in 2, $\frac{1}{5}$ in 1, $\frac{1}{8}$ in 2, $\frac{1}{16}$ in 2, and $\frac{1}{100}$ in 5, these last being practically blind. One of these women had passed through 10 normal pregnancies. In the 11th, at the 8th month, the amblyopia began, and five weeks were enough to cause blindness.

He believes that hemorrhage into the vitreous during pregnancy is especially dangerous and is an immediate indication for bringing on labor. The loss of sight is caused less by the retinitis proper than by the later results—atrophy of the optic nerve, choroid retina, and detachment of the retina—which may come very gradually during the months or years following, or make the optic nerve and retina more susceptible to morbid influences.

In closing this part of the subject I cannot do better than to quote NOYES's words: "This point in the management of labor must be regarded with more attention than it has received; and because there may be lesions of the nerve or retina without impaired sight, inspection with the ophthalmoscope is strongly recommended, for the same practical reasons which call for examination of the urine, even though there are no urgent symptoms. Vision may also be impaired with little or no visible lesion."

Diabetes in its ocular manifestations gives a more varied picture, and has many symptoms which may attract the attention of the general practitioner. HIRSCHBERG states that, among 7176 patients who came to him for the treatment of diseases of the eye, 113, or $1\frac{1}{2}$ per cent., were diabetics, and in one-third of the cases the disease was diagnosticated by the ocular symptoms. He mentions 13 ways in which diabetes may manifest itself in the eye.

I shall not inflict them all upon you, because the retinitis, very similar to that of Bright's disease, the optic atrophy, the iritis, the paresis of accommodation—which is one of the earliest and most frequent symptoms—the retrobulbar neuritis, causing a central scotoma very similar to that of tobacco amblyopia, etc., are symptoms of especial rather than general interest, and the sugar, unlike the albumin in nephritis, is always present.

I have seen a case where the last-mentioned symptom, the scotoma or central blindness, was very marked, and the patient was warned to abstain from tobacco and alcohol, which he did very unwillingly until someone by chance examined his urine and found it loaded with sugar, upon which the patient was happy to change his abstinence. This reminds me of the experience of a well-known oculist—not exactly *à propos*, but worth the telling. On examination he found that the appearance of the optic nerve was strongly suggestive of retrobulbar neuritis, a condition due to excess in tobacco or alcohol, and, wishing to let the patient down easy, ordered him to smoke one cigar a day. After a few days the patient returned and asked if it was necessary to continue the treatment. He found it the worst medicine he had ever taken; it seems he had never smoked before.

With this we finish the very brief consideration of this group, characterized by vascular and nutritional changes caused by irritants circulating in the blood, or perhaps by the absence of normal constituents, as in loss of sight from sudden anemia after hemorrhage. Of 96 cases collected by FORIES in 1876, in 34 the hemorrhage was from the gastro-intestinal tract; in 24 from the uterus; 24 were due to artificial extraction of blood, 7 to epistaxis, 5 to wounds, 1 to hemoptysis, and 1 to urethral hemorrhage. It does not occur in hemophilia. The blindness is generally sudden and is complete and permanent in 65 per cent. It is striking that so small a proportion of these cases (5 per cent.) follow loss of blood from trauma or surgical operations.

The final condition is atrophy of the optic nerve, probably preceded by inflammation of the nerve and retina.

Syphilis and Tuberculosis.—I shall speak very briefly of syphilis, the signs of which are as manifold in the eye as elsewhere. The disease affects chiefly the uveal tract, that is, the choroid, ciliary body, iris, and posterior layers of the cornea. To speak only of the interstitial inflammation of the cornea, this is a very chronic process in children and young persons; characterized by small-celled infiltrations of the deeper layers, which form grayish opacities by the growth of new vessels, advancing from the corneo-scleral margin.

The epithelial surface of the cornea is unbroken, but loses its glistening appearance. The frequent hyperemia of the sclera around the margin of the cornea (ciliary injection) shows that the cornea is not alone involved.

HIRSCHBERG says: "Relatively the most frequent of all eye diseases from congenital syphilis is the diffuse keratitis. This is easy to recognize if seen in its early stage; one must, however, avoid speaking of a scrofulous form in the old arbitrary way"; and in a foot-note he says, "The one case reported by VON HIPPEL as probable tuberculosis cannot shake my conclusions based on nearly 1000 clinical observations." This was written less than a year

ago; and I think it is interesting as showing how clinical observations must make way for the newer and better founded facts. How could he tell, brilliant clinician though he is, that among those thousand cases there was not a certain percentage due to tuberculosis? This latter, at least, is the growing opinion based on work done principally in Michel's clinic at Würzburg on examinations made by LEBER, his assistant VON HIPPEL, and others.

To avoid making the paper too long, I will deal with this subject as briefly and treat it in as general a way as possible. Excepting the lens, no part of the eye is exempt from tuberculosis.

Until recently, the only form of tubercular inflammation of the iris has been thought to be the so-called granulation tumor, progressive and destructive to tissue. A second form has been called, since 1891, attenuated tuberculosis, the *abgeschwächte Tuberculose Leber's*. Although described much earlier, it was not proved to be tuberculosis until LEBER's cases were published. In this form there appear on the iris small grayish granules, which come and go, leaving little trace beyond a slight depression or almost imperceptible cicatrix in the iris. At the same time there is usually a plastic iritis leading to adhesions of the pupillary margin of the iris to the capsule of the lens (posterior synechiæ), and there may be exudation into the vitreous, showing that the ciliary body is involved.

MICHEL says that the sero-plastic iritis is caused by tuberculosis in 40–50 per cent. of the cases, but this view is not held by other observers, and he probably exaggerates, in spite of the great prevalence of tuberculosis in the neighborhood of Würzburg. I may say in passing that the most frequent causes of iritis are syphilis and rheumatism.

The prognosis of the tubercular form is relatively good; some cases recover with an astonishing clearing up of the transparent media, and the granules show little tendency to cheesy degeneration and ulceration, although sometimes this form passes into the progressive and *vice versa*.

On account of the benign course, the diagnosis is often subject to doubt, especially as this form may occur with no discoverable tubercular lesion in other parts. The important question is raised, How can the diagnosis of tuberculosis be established? The presence of the bacilli is no longer essential, for KOCH and BAUMGARTEN have proved that there may be tuberculosis with no signs of the bacilli, and claim that the spores alone may transmit the disease, and WESEMER goes so far as to say that the different forms of the disease are due to the different action of the spores or the bacilli. The bacillus is a more active excitator of inflammation, as the spore requires a certain time to develop and may act at first only as a foreign body, and (I add the hypothesis) may be prevented from developing, so accounting for the favorable course of the disease. With regard to the inoculation of animals: Does a failure prove the absence of tuberculosis?

Until comparatively recently, the question would

have been answered affirmatively; but, to speak only of ophthalmological literature, LEBER, 1890-91; LIEBRECHT, 1891, who claims that the attenuated form of the disease is the cause; SAMUELSON, 1893, who believes that the varying resistance of individuals and also of organs is responsible for the failure of inoculation,—these and others prove that it is not an infallible test.

Another hypothesis suggests itself; we know that cultures of the tubercle bacillus when exposed to the sunlight for a varying time lose their virulence and become innocuous. Perhaps these deposits in the anterior part of the eye are so weakened by the continuous daylight that they become inert. It is also possible that the aqueous humor and perhaps the peritoneal and pericardial fluids have some germicidal action, and, being constantly renewed, so dilute the colonies of bacilli as to render them inert, or at least incapable of opposing the conservative action of the tissues. Moreover, in these cavities the infection is less likely to become mixed.

One of LEBER's cases is worth relating, as it illustrates several points. He says:

"The condition which formerly gave rise to doubts, namely, the spontaneous healing of the lesion, has no longer weight, as I can prove that such cases, too, may be tuberculous.

"A case of iritis is conclusive evidence, which occurred in a girl of four years, in which humorous nodules were so scattered over the entire iris that it was impossible to remove them by iridectomy.

"The iris was very vascular, the pupil irregular but clear. On account of numerous deposits of exudation on the cornea, the interior of the eye was not visible with the ophthalmoscope.

"The course of the disease was the usual one—indolent, with few inflammatory symptoms; it had existed already five weeks, and in the next three months made very little progress. At first the nodules seemed to be a little smaller. With the exception of a small mass of glands under the left jaw, there were no symptoms of tuberculosis in other parts of the body. As at the end of three months an almost imperceptible growth of the nodules was noticed, and they seemed to be growing a little yellower, I made an iridectomy, simply to gain material for an inoculation experiment. In the portion of iris removed there was a conglomeration of small, yellowish-gray nodules of exceptionally hard consistency. The healing of the wound was normal, and although only a small part of the disease had been removed, I was surprised to find after two months a noticeable regression of the nodules, and a change to connective-tissue shrinking. Most of the nodules had disappeared, signs of inflammation were very slight, the tension was reduced. (This, let me say in parenthesis, is very significant in all long-continued inflammations of the eye, and after injuries; indicating that there is a formation of new connective tissue in the vitreous, which will, later, lead to shrinking of the eye.) The patient's general condition was good. I confess that after the normal recovery from the

operation, I hardly expected a positive result of the inoculation. For this two rabbits were used, a half of the fragment of iris being introduced into the eye of each. After an interval of 14 days there was no reaction, the fragments lying in the anterior chamber. I omitted to observe the eyes for some time, and was astonished at the end of seven weeks to find a well-marked inoculation tuberculosis of both eyes, which from its intensity must have existed already some time. The regression of the nodules in the iris of the patient continued, so that three months after the iridectomy there was no further sign of them. The shrinking of the eye, however, continued, and it was removed. The pathological appearances corresponded to the clinical course—tubercular inflammation of the iris in a regressive stage, nodules undergoing connective-tissue change, and holding giant cells. Bacilli were not found, although they were present in the rabbits' eyes."

I do not know what the results of pathological work have been in other directions. A few references, however, may be interesting.

OSLER (*Am. Jour. Med. Sciences*, January, 1893), in an article on "Tuberculous Pericarditis," says: "A considerable number of all the cases on record are latent. The disease is discovered accidentally in individuals who have died of other affections or of chronic pulmonary tuberculosis. It is not impossible that tuberculosis of the pericardium may, like a similar process in the peritoneum, recover completely. Possibly some of the cases of simple adherent pericardium are instances of healed tuberculosis."

OSLER quotes from Guy's Hospital Reports a story of Sir WILLIAM GULL, which applies somewhat generally to diseases of this nature, with a tendency to spontaneous healing:

"He once met a practitioner in a case of rheumatism, in which he detected a pericardial rub. He said nothing of this to the patient's friends, but approved the general treatment, and they came away together.

"'O Dr. GULL! it was good of you not to let them see I had made that dreadful oversight. I cannot think how I can possibly have failed to detect that pericarditis.' 'Never mind,' said GULL; 'it is just as well; for if you had detected it, perhaps you might have treated it.'"

The treatment is, or should be, unquestionably expectant. If the bacilli are so few or so enfeebled that the disease may be called attenuated, then operation does no good; if, on the other hand, there is a tendency to progression, interference will only make matters worse by scattering the organisms more widely through the tissues, as well as defeating nature's conservative measures of encapsulation and isolation of the foci of disease.

What the explanation of the effect of the exploratory laparotomy may be in tubercular peritonitis, and whether the favorable outcome of LEBER's case may be attributed to the iridectomy, I cannot say.

Enucleation of the eye is a last resort, for cos-

metic reasons, and, where the disease is rapidly advancing, to prevent reinfection of the other organs; but the latter is a theoretical consideration, for tuberculosis of the internal parts of the eye is always secondary.

The analogy is close between the eye and the intracranial cavity, for instance; and perhaps more cases of meningitis that recover are tubercular than we are aware of. I recall one such case of alleged tuberculosis in the *Lancet*, 1894, Vol. I, p. 597, which recovered after drainage of the arachnoid and subarachnoid spaces. We know that tubercular peritonitis is cured or recovers spontaneously, and we read the same of laryngeal tuberculosis. The eye offers a field of observation for the study of disease in plain view. This and the recent work on the subject, which has been extensive, are my reasons for presenting so long a paper.

New York.

MISCELLANEOUS ITEMS

Citric Acid as a Gargle in the Prophylaxis of Acute Articular Rheumatism.—W. STEKEL (*Sem. méd.*, 1896, XVI, p. xviii)

Acute articular rheumatism being frequently preceded by sore throat which, so to speak, opens the way to the hypothetical infectious agent of polyarthrititis, Dr. S. recommends, in each case of amygdalitis or of pharyngitis of a rheumatic origin, the use of a solution of citric acid as a gargle. By this means the author thinks he destroys the pathogenic germs which may have accumulated in the pharynx, and thus prevents the possible development of acute articular rheumatism.

The gargle he employs with adults is made as follows:

Citric Acid 10 gme. (150 grn.)
Water 100 gme. (3½ fl. oz.)
Saccharin 0.4 gme. (6 grn.)

Add a tablespoonful to a glassful of water, gargle with this solution, and drink a swallow of it every five to fifteen minutes.

To children less than one year old, Dr. S. prescribes:

Citric Acid 1 gme. (15½ grn.)
Water 70 gme. (2½ fl. oz.)
Syrup Lemon 30 gme. (7 fl. dr.)

To be taken in teaspoonful doses every half-hour.

This solution should be preserved in a cool place, preferably on ice.

Calomel in Grippe.—DUMAS (*Sem. méd.*, 1896, XVI, p. xxvi)

Dr. D. states that he has found that calomel, administered from the very beginning of an attack of grippe, exerts a highly beneficial influence upon the evolution of this disease. In grave cases he begins the use of the remedy as soon as he can after being called, waiting, however, three hours between the last meal and the first dose of calomel. In milder cases he waits until the following morning, when the patient is fasting.

The total quantity of calomel ingested varies according to the age of the subject. To a vigorous man the author gives 1 gme. (15 grn.); to a woman, 0.8 gme. (12 grn.); to an adolescent, 0.5 gme. (7½ grn.); to a child more than seven years old, 0.25 gme. (3¾ grn.); to a child up to the age of seven years, 0.2 gme. (3 grn.); and to infants, 0.05

gme. (¾ grn.). This quantity he administers in five doses, one dose being given every two hours in a spoonful of sweetened water. During that time and for three hours after taking the last dose, the patient is to take no food and drink only as much as is absolutely necessary to quench the thirst.

In case grave complications supervene, such as pneumonia or grippal meningitis, Dr. D. again resorts to calomel. He has sometimes had to repeat the treatment two, three, and even four times, but regularly allowed one day to elapse between each repetition.

He states that the administration of calomel must always be accompanied by the systematic care usually bestowed on the mouth in such circumstances (gargling with borated or chlorinated solutions).

Nitroglycerine in Biliary Colic.—G. L. TURNBULL (*Lancet*, 1896, I, p. 353)

The author relates a case of gall-stone colic, which was promptly relieved by nitroglycerine.

The patient complained of attacks of pain beginning in the right side of the abdomen just below the ribs, in the nipple line, and passing round like a belt into the back. The attacks recurred at irregular intervals. The patient was of florid complexion and of stout build, and there was a distinct gouty family history, though she herself had never had an attack of gout. There was no jaundice at the time. The examination of the abdomen revealed nothing but slight tenderness about an inch below the ribs, a little to the inner side of the right nipple line. There was no dullness on percussion here, and no tumor could be felt.

A provisional diagnosis of gall-stone colic was made, and a tablet of nitroglycerine (1/100 grn.) was ordered to be taken if the pain recurred. The tablet gave relief in a few minutes, and, with one exception, she has never had an attack since which has not been relieved by one or two tablets. The use of nitroglycerine in biliary colic is suggested by its known paralyzing action on unstriated muscular tissue. Presumably it relaxes the spasm of the gall-bladder and ducts. Perhaps some of the cases of gastralgia that are relieved by the drug are really cases of biliary colic. When there is intolerance of morphine, nitroglycerine should prove useful in these cases.

Soziodole-Potassium in Coryza.—J. KEIZLER

Having learned that the soziodole preparations had been employed with asserted beneficial results in the treatment of coryza, the author resolved to try it upon himself. He had suffered for many years from severe and painful coryza, which recurred periodically several times a year, and which spread from the nasal mucous membrane to the air-passages, and usually ended in severe bronchial catarrh, the latter lasting about two weeks.

Upon the appearance of the cold recently, which usually announced its onset by severe sneezing, he applied soziodole-potassium as far up as possible to the nasal mucous membrane, by means of his finger previously dipped into the powder. To his agreeable surprise he observed that after a few applications the coryza was aborted without the usual catarrhal affections developing. Since that time the author has kept himself free from this unpleasant trouble by using once or at most twice a week a snuff composed of soziodole-potassium, one part, and powdered roasted coffee, two parts, as a nasal disinfectant; a small quantity only being snuffed up into each nostril.

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ANOTHER ULTIMATUM FROM THE SUPERINTENDENT OF STREET-CLEANING.—Under Federal ruling, on the 1st of April it was forbidden to dispose of garbage by dumping it into the waters of the Lower Bay. It was expected that by that date the Superintendent of Street-cleaning would have devised obvious methods of disposing of the city refuse after a more civilized fashion. The 1st of April dawned and passed and the old methods were still in force; and then the community became aware that possibly only a joke fitted to the season had been perpetrated by the change advertised so extensively for months in advance. It seems that there is one department, at least, in this city which is a bigger man than the Federal Government, unless we are to take in all seriousness the newest ultimatum emanating from the expert who presides over this department.

Thus we note that after the new contract for the disposal of the city's garbage goes into effect—when this shall finally be is not stated—garbage will be kept separate from ashes and be collected in separate carts. Similar rules were formulated a year ago; and yet, while the citizens have bought separate receptacles and scrupulously placed ashes

in the one and garbage in the other, the same cart collects them. What in the world is the use of issuing manifestoes which the citizens obey and the employees of the Street-cleaning Department disobey?

The day has passed when this community is going to rest satisfied with bombastic utterances and orders. We await facts, and desire less talk and more action. Action of the proper caliber will consist in causing department foremen to see that the collectors perform their duty after the fashion demanded by sanitation and common sense; and in the line of both is not alone the separate collection of ashes and of garbage, but the carting away of each in closed carts, thus avoiding that which is necessarily of constant occurrence—the disposition of ashes and litter of every imaginable sort in the streets, possibly immediately after these have been properly cleaned. How slow these officials seem to be to see as others do—even the rawest recruit to our population—and to adopt methods which will tend to keep our streets clean, because one method of rendering them filthy will have been done away with, and which by the adoption of the simple process of the incineration of garbage will cease ruining the beaches adjacent to this city.

What is the use of a manifesto which carries a clause to the effect that refuse, other than ashes and garbage, shall be stored in the house or in the back yard until called for, when anyone at all familiar with the necessities of our vast population knows that the majority have no room to spare within their living-quarters to store refuse in, and that only the favored few can boast of a back yard? Then, again, in case it were feasible for the majority of those who live in this city to dispose of this refuse until called for, to judge from the record of the past, many a day may elapse before it is called for.

In short, with the best intentions in the world, and having been favored with higher educational facilities than characterize the average city employee, the present Commissioner of Street-cleaning is too slow in action of a sensible type, and is not doing credit to the vast fund of practical knowledge which he undoubtedly possesses. Possibly, now that the Mayor has disposed of that rather weighty matter—the Consolidation Bill—he will direct his attention to his appointee, and make him do quick and strict, sensible duty or find someone else of the same scientific knowledge, but the possessor of more vim, especially as the heated term is all but upon us, and we have made no progress along common-sense lines in this important department.

MEDICAL EMPLOYEES OF BOARDS OF HEALTH AND THE PROFESSION.—In another column the BULLETIN prints a letter from a subscriber the tenor of which reveals a lack of appreciation on the part of employees of the Board of Health of the limitations of their duties. Under the law professional men are obliged to report to the Board of Health the presence of diseases of an infectious nature occurring in their practice. This duty is cheerfully conformed with, since it is recognized as requisite in order to enable statistical data to be properly kept, and also because it is important that contagion should be prevented and the spread of epidemics be avoided. This duty, furthermore, the professional man performs without remuneration, considering that it is something which he as a citizen owes to the commonwealth.

Boards of health in recent times have, in every possible way, endeavored to devise means for making the matter of reports as little a tax as possible on the time of the busy practitioner. Neither the law, however, nor the dictum of any board of health justifies its employees figuring in the rôle of either attending physician or consultant. The strict limitation of the duties of the inspector is to certify that there exists a case of contagious disease in the household whence the report emanated, and this is all. If he should find that the diagnosis is an erroneous one, it is not within his province to so state to the family or the patient, thus inevitably casting disrepute on the diagnostic ability of this professional brother. Nor is it within his province to prescribe for the case or to give any opinion as to whether or not the patient has outlived the contagious stage of the disease. Least of all is he required to discharge a case of scarlet fever in the absence of the attending physician, as occurred in the instance brought to our knowledge.

Such an act constitutes the grossest possible breach of ethics,—the overstepping of duty to a degree which calls for prompt reprimand from superior officers, if not for dismissal from the service of the department. What does the inspector from the Health Department know about the phases of the disease in the individual case, except possibly that the time when contagion is usually effective has been passed? Suppose, in case of scarlet fever, for example, that there exists a kidney complication which, in the opinion of the attending physician, calls for great circumspection in regard to the time when the patient should be allowed to leave his bed. Can it for a minute be claimed that it is the duty of the inspector from the Health Department to decide the

question in the absence or even in the presence of the attending physician? Inspectors from the Board of Health can neither figure as attending nor as consulting physicians unless so requested to act by the physician in charge. In the event of the meddlesomeness of an inspector leading to serious complication we question if the Board of Health, since in the eye of the law it is held responsible for the act of its agents, does not lay itself open to suit for damages.

We believe that the facts in the case referred to, if they are stated to the officials of the Board of Health, will result in the discipline of the offending employee. We only dwell thus at length on the question at all because, at times, equally flagrant instances have been reported of meddlesomeness and officiousness of the same character. We sincerely trust that the duties of employees will be so clearly defined that in the future there shall be no cause for complaint against a department of our city government, which in many respects is attending to its duties after a satisfactory fashion.

READY-MADE PILLS.—It is always interesting and instructive to hear both sides of a question. This, for instance, is the way an old-time country practitioner delivers himself of his views in the pages of an Occidental contemporary, in the course of an article which lauds various proprietary preparations:

“Once in a while some physician will jump to the front with ‘a cry out’ against proprietary medicines. They liken them unto ‘patent-medicine man’s product,’ and whoop up the ethical of the profession for using them. I am compelled to believe them to be young doctors, or city physicians, who have the chance of having their ‘prescriptions carefully compounded,’ for, from my soul, I cannot believe that any old country doctor would go back thirty or forty years and again take to making his own pills and purges. An effective mode of checking these howlers would be to get them back to the times of the forties and fifties. I have made thousands of pills, and gelatin-coated each one of them on a pin. It was two hours’ hard work to the hundred, and 50 cents out of pocket in temper when done. Brethren, we should go down on our knees and thank the ‘Master’ that there exists the proprietary pharmacist, who, at immense cost in capital, brains, time, and experimentation, gives us so many to choose from, of valuable aids to our work, and at a trifle in cost compared with old times.”

We certainly do not cherish a desire to go back thirty or forty years in this or any other direction. The educated pharmacist has penetrated during these years into almost every hamlet of the land, and the pestle and mortar have disappeared from the armamentarium of the physician. If there be still some towns which have not their full quota of drug-stores, New York might perhaps spare a few to

make up the deficit; for, whereas in Germany a city of 20,000 inhabitants seems to thrive with three "apothekers," who confine themselves solely to the compounding of prescriptions, in an American city of the same size a dozen can scarcely provide the people with soda-water, notions, and postage-stamps. Business enterprise has undoubtedly taught us much concerning the palatable administration of drugs—great advances have been made in this direction—but we caution the author to remember that there are remedies proprietary and *proprietary*.

THE GENERAL PRACTITIONER AND THE TREATMENT OF UTERINE DISPLACEMENTS.—The general practitioner who has kept in touch with current medical literature can but have felt at sea in regard to the treatment of uterine displacements. The wealth of methods advocated, often on insufficient data, can but have confused him and possibly made him wonder if, after all, much may be effected of a permanent and non-injurious nature for the relief of that which troubles the vast majority of the women who, from force of necessity, must needs go to him for counsel. The fact must not be lost sight of that, perforce, the large majority of women must consult their family adviser, since, notwithstanding the vast army of so-called, or rather would-be, specialists in the diseases of women, many localities cannot support even one, or the women are not in a position to consult those who, by right, have acquired the title of specialist. Further, every woman with, say, a backache does not feel called upon to consult a gynecologist—to her good fortune frequently—for, unquestionably, there are many causes of backache besides retro-displacement of the uterus, causes which may often be relieved by such simple measures as result in, possibly, only the overcoming of a persistent chronic constipation.

Now this whole matter may be much simplified for the general practitioner; and this will be in the line of impressing on him the fact that symptoms traceable directly to uterine displacement in the vast proportion of cases will be found dependent, not so much on mere tilting backward or forward of the uterus, as on downward sagging of the organ. His aim, therefore, must often simply be to relieve the cause of this falling downward of the uterus. Supposing the case to be one where there is no complicating periuterine disease, including the tubes and the ovaries, if he do not determine the cause of the descent of the uterus to be superincumbent weight, such as, for example, is associated with the presence of a fibroid, he will find a heavy uterus the result of

an endometritis, and also, to be exact, the cause frequently of an endometritis. The aim of the general practitioner, therefore, is to take steps to cure the endometritis through resort to well-recognized means, and then, the uterus, becoming lighter, does not sag to the same degree, and the backache, so far as it is dependent on this cause, will disappear. It will not be found requisite to perform ventrofixation, vaginofixation, or Alexander's operation; but, the intestinal canal being kept functioning after a natural fashion, lesions of the cervix and of the pelvic floor, which, indirectly, favor falling down of the uterus, having been repaired, the organ seeks its normal level in the pelvis, and the backache and frequent micturition and reflex neurotic disturbances will often disappear very rapidly without having subjected the woman to operative means, which are too frequently problematical in their results, and, at any rate, in regard to all of which there exists no definite consensus of opinion.

These comments are not intended to disparage these operative measures, for doubtless in course of time each will find its sphere of value and its limitations, but we are enabled possibly to relieve the embarrassment in which the vast body of medical men may find themselves as they read, ponder, and rise unrefreshed and unsatisfied in their search for methods of cure for what constitutes a source of discomfort or actual pain to many a woman. And, further, it leads us again to deprecate the rushing into a specialty of the young graduate who has not as yet learned the methods of general practice; that is to say, who does not realize the importance of studying the body as an entity before concluding that this, that, or another organ is at fault for a given symptom or group of symptoms. It is often the enthusiasm of the young, untrained operator that leads to the abuse and the ultralaudation of new procedures which time places in its correct niche—that of limited utility.

FOR PROTECTION AGAINST CONTAGION.—The Health Department of the city of New York has instructed the Chief of the Bureau of Contagious Diseases to take the necessary steps in the direction of prevention of the sale and use of impure milk, with a view to lowering the recent increase in percentage of contagious diseases; and that officer proposes to exert every effort to the end of freeing the city from a threatened epidemic. There is not a doubt that a great many instances in which apparent sporadic breakings-out of contagion assert themselves are attributable entirely to the source of sup-

ply of milk. Just at this time of the year conditions surrounding typical dairy-yards or farmyards are exceedingly favorable to the propagation of disease, and the tendency to its dissemination is perfect. Individual cleanliness is not one of the characteristics of the dairyman in general, and there is usually a woful lack of attention to the proper care of the barn and stock. Under conditions like these, milk is made the means of transportation of disease in an affected territory, or a person, to the city, resulting in an epidemic. Even potable water is known to have served as an agency in the distribution of typhoid contagium, and conditions such as exist at this time of the year were, in 1885, productive of grave consequences in Plymouth, Pa., where a mountain stream which fed the reservoir that supplied the city with water became contaminated by the dejection of a patient suffering with typhoid fever, the accumulation being suddenly swept into the running stream. In consequence of this an epidemic of fever prevailed among those who drank the water, and over one hundred deaths were reported, out of upward of fifteen hundred cases of sickness. The use of fouled water to dilute milk has also been known to introduce disease, and the Board of Health cannot therefore be too careful or exercise too much vigilance in the examination of this medium of transmission. We are of the opinion that greater headway might be accomplished if a regulation were made providing for the periodical examination of milk brought into the city, the same to be made immediately upon arrival of the shipment. It would then be an easy matter to place responsibility for the contamination and its results, which are even more likely to emanate from some of our cramped city or suburban dairies than from country farms within shipping distance, and the source of supply could then be promptly quarantined.

Heroic Treatment for Drunkards.—An army surgeon is reported as having administered the following treatment in cases of drunkenness among the soldiers of his command, with gratifying results: Every man who has reported at the hospital in a stage of simple alcoholism is treated as a case of alcoholic poisoning, taken immediately to the operating-room, his stomach emptied by the use of a stomach-pump, and thoroughly washed out with warm 2-per-cent. soda solution. After this he is given a bowl of hot beef extract, with cayenne pepper, and allowed an hour's rest, after which he is perfectly able to do his duty.

The treatment is energetic, but an excellent means of ridding the army post hospital of that class of periodical drunkards who regularly report for treatment and a little rest after the usual pay-day spree.

GENERAL MEDICINE

Department Editors

WILLIAM CHARLES GUTH, M.D.

and

HENRY TURNER BROOKS, M.D.

Collaborators

ADOLPH ZEH, M.D., ADOLPH BARON, M.D., JOHN HOCH, M.D., WILLIAM VISSMAN, M.D., WILLIAM Y. FINCH, M.D., GEORGE W. BLANCHARD, M.D.

Experiments on the Elective Growth of Species of Bacterium Coli with its Diagnostic Significance.—ELSNER (*Zeit. f. Hyg. u. Infektionskr.*, XXI, pp. 25-31)

The author prepares a medium by adding gelatin to infusion of potato (1 lb. to 1 quart of water). This was boiled and its acidity so reduced that 10 c.c. of the mixture could be neutralized by 2.5 to 8.0 c.c. of decinormal soda solution. This stage being attained, 1 per cent. of potassium iodide was added.

On addition of sewage and all kinds of polluted water, it was shown that the colon bacillus grew prolifically, and that other bacteria developed but rarely. When other bacteria did develop, they were overshadowed by the colon bacillus. The typhoid bacillus grows on this medium, but its growth differs so widely from that of the colon bacillus that there is very little difficulty in differentiating it. At the end of 24 hours the colonies of colon bacilli have the same appearance as when grown on other acid media, while, on the other hand, the typhoid bacillus colonies are scarcely discernible with low powers. After the lapse of 48 hours they appear as small, light, glistening colonies, having a slightly granular structure.

By the use of this medium the author found the typhoid bacilli in 15 out of 17 patients. Of the two negative cases, one was out of the city and in the seventh week of the disease; but the author did not learn whether the patient's temperature was normal or not. The other patient was examined only two days before the fever subsided.

Diagnosis of Neoplasms from Microscopic Examination of Transudates.—RIEDER (*Wien. med. Presse*, No. 43, 1895, p. 1632)

Examination of sediments from exudates and transudates is not complete unless a dried and stained specimen has also been examined; for, beside red and white corpuscles, endothelial cells, cholesterin, and fatty acid crystals, we sometimes are able to find cells of different origin as well as particles of tumors. Large numbers of polymorphous cells of irregular size, particularly when they are massed together and contain vacuoles, resemble cancer cells more than ordinary endothelial cells; but the form and size of the last named cells may vary so much in inflammatory processes of the serous membranes that a diagnosis may be doubtful.

It is true that examination of these fluids generally reveals round or oval cells with granulated protoplasm. Accompanying these we may find some polymorphous cells with one or more nuclei. To differentiate these the author employs Quincke's glycogen reaction, for cancer cells usually give a positive result, while the endothelial cells seldom yield a positive reaction. Furthermore, the tumor cells may be recognized from their large size and formation of masses, and, at times, by their power of proliferation, which is evident from an appearance of a tumor at the site of inoculation.

In the *Deutsches Archives fuer klinische Medicin* (LIV, No. 6, p. 346) the author reports a case of sarcoma of the peritoneum in a woman *æt.* 40. Cachexia and symptoms of internal hemorrhage were not found. The fluid removed from the abdomen by puncture was odorless, yellowish-brown in color, fluorescent, cloudy, of alkaline reaction, and specific gravity of 1017. After the addition of nitric acid, heating produced a thick, flocculent precipitate. Peptone reaction was positive. Sugar reaction negative. Glycogen reaction produced a brown color in dry specimens, but not in fresh. On cooling, a tough, pink coagulum separated. Microscopical examination of this revealed very few fibrin fibers, numerous red, a few colorless corpuscles, a number of polymorphous cells containing one or more nuclei. Glistening droplets, free in the liquid and inclosed in the cells, were also present. These were supposed to be of proteid nature, on account of negative result of osmic-acid reaction. Many of the polymorphous cells contained vacuoles which pressed the nucleus to one side.

Notes on the Influence of Heredity in Disease.—

WILLIAM SEDGWICK (*British Med. Jour.*, No. 1834)

There has prevailed a great divergence of opinion respecting the tendency of certain hereditary diseases to increase or diminish in succeeding generations, which may to some extent be due to the fact that atavism occasionally varies in the extent of its influence, as shown in cases of hemophilia, color-blindness, and of other diseases, among which the most prominent are insanity, syphilis, and gout.

Mr. HUTCHINSON, regarding the family history of gout, has remarked that "we may correctly refer not a few cases of this disease to remote inheritance, in which no corroborative history is obtained." A case is cited by him in which three brothers, who had all lived a temperate life, in middle life suffered from severe paroxysmal attacks of joint disease, closely resembling true gout, but eventually taking the form of rheumatic arthritis.

As a good illustration of prolonged latency in transmission the following case was observed that in no fewer than seven out of eight groups of deaf-mutes, who all occupied the same level of descent, there was no instance of a deaf-mute intervening between the common ancestor and 17 of his great-great-grandchildren. There was, however, an 18th great-great-grandchild of the male sex, who was not only a deaf-mute, but who derived the morbid inheritance from a deaf-mute mother. Other cases of latent transmissions of congenital defects, affections of the skin, and various diseases are mentioned.

In cases of pseudohypertrophic muscular paralysis, with other and closely allied diseases, which occur for the most part in early life, it is not unusual to find that the female conductors of the disease have had collateral relations, usually of the male sex, who have died from it at a comparatively early age, like some of their own male offspring. A case is recorded by Dr. RUSSELL, of Birmingham, in which two sons, in a family of four sons and five daughters, were thus affected. The mother and the maternal grandmother were both healthy, but two brothers of the mother, and one brother of the maternal grandmother, suffered from the disease. Dr. HELLER's well-marked case is cited by Dr. GOWERS, "in which a son of a woman by one husband and two sons by another were all affected, and the mother's brother was also the subject of the disease." But the disease could not be traced to any

collateral member of the family affected. But the influence of atavism in these, as in other diseases, has been recognized by many writers on the subject; especially has Dr. GOWERS referred to families in which, as he informs us, "antecedent cases can be traced, and these are invariably on the mother's side. The disease is thus transmitted by women, who are not themselves its subjects." In such an exceptional case as that cited by Prof. FRIEDREICH, of Heidelberg, in which two brothers began to be affected with hyperostosis of the entire skeleton at the respective ages of 18 and 17 years, no previous history of this morbid affection could be obtained.

Dr. S. goes on to state that in such cases as those in which diseases and defects are subject to the usual influences of atavism, and transmission is in consequence restricted to alternate generations of females, and development to alternate generations of males, it may readily be perceived that its suppression on one or two occasions, in the usual line of descent, would lead to great difficulty in tracing the defect to its more or less remote origin. Such a case, for example, as that of color-blindness, which Sir WM. TURNER has lately cited in his Newcastle address, it would have been very difficult to have traced this peculiarity to its source, if any such extensive suppression had occurred. Although the development of the color-blindness in this case was strictly limited to the males in the first, third, fifth, and seventh generations, its transmission was limited to the females in the second, fourth, and sixth generations. In this sixth generation seven of the females became mothers, and by them the morbid inheritance was conveyed to eight out of their nine sons; while their nine daughters, in common with the females of all the preceding generations referred to in the family, remained free from it. There are some carefully recorded cases in which diseases and defects of a strictly male character, and which, consequently, the male sex could alone develop, have been transmitted, in the latent condition, through the female line of descent, to male offspring, in whom they have reappeared.

With reference to other diseases and defects, observations have been made by well-known observers. Sir WM. BROADBENT, in his *Haveian Lectures on Prognosis in Heart Disease*, has stated that "in no class of cases is it more necessary to inquire into the family history than in diseases of the heart," and cites a remarkable instance of this family predisposition in the direct male line, which was presented by the well-known ARNOLD family. In this family "the father of Dr. ARNOLD, of Rugby, Dr. ARNOLD himself, and now two of his sons, have all succumbed to chronic heart disease."

In cases of a still more exceptional character, it may be observed that structural peculiarities and diseases of distinctly male organs, and which consequently females would be altogether unable to develop, have been transmitted by them in the latent condition to some of their male offspring, in whom they have reappeared. It has been observed that hydrocele, phimosis, hypospadias, and other morbid affections of distinctively male structures can be transmitted through the female line of descent to male offspring, through the influence either of direct or indirect atavism. A case is recorded by Sir HENRY HOLLAND, in which the males of three out of four generations in one family were affected with hydrocele; the omission depending on a female being the third in the series, and in whose son the complaint reappeared. In like manner phimosis has been not infrequently transmitted by women to

some of their male offspring, as occurred in a case in which operations for its relief had been performed on a father and his son, and on the son of a second, and also of a third brother of the father. The three brothers in this case had two sisters, one of whom transmitted it to two sons, and the other sister to one son.

From all the cases cited it is evident that although there is a very great and sometimes even preponderating influence of the male sex on development, yet, as regards health as well as disease, the author says, transmission is more commonly and more readily effected through the female than the male line of descent, and this preference for the one sex rather than the other has been popularly recognized from a comparatively early date.

The Hypodermic Use of Guaiacol in Acute Pulmonary Tuberculosis.—J. G. SINCLAIR COGHILL (*British Med. Jour.*, p. 586)

It is only in comparatively rare cases that guaiacol, given by the mouth, has any influence on the temperature of acute pulmonary tuberculosis, when of high intensity; whereas, the author states, a daily inoculation of from 2 to 5 min. in a very large proportion of cases reduces it gradually and permanently. In many of the cases the injections were persevered in for some time before any impression was produced on the temperature. The temperature fall is comparatively gradual, and very rarely falls to subnormal. With this gradual fall in the temperature, improvement almost invariably occurs in the other symptoms, the cough and expectoration diminishing, and the appetite and weight increasing. A moderate warm perspiration, which usually follows the injection at a variable interval, very soon takes the place of the regular hectic night-sweats. The author's custom is usually to continue the exhibition of the remedy by the mouth at the same time, not only to aid in the saturation and probable sterilization of the blood, but because pure guaiacol seems to check the decomposition of food in the *prima via*, which the enfeebled digestion of phthisical patients so readily permits.

As to the dose and mode of hypodermic administration, Dr. C. usually begins with the minimum dose, giving it before the diurnal rise of temperature has passed above normal. If temperature is not reduced in a few days the dose is increased drop by drop to 5 min. or even 7 min., which rarely requires to be exceeded. If the reactive sweating is excessive it may be necessary to give two small injections daily, but this is quite exceptional; at the same time he has used guaiacol epidermically, instead of a second injection, to anticipate the evening rise of temperature, painting from 10 to 30 min. over the cutaneous area corresponding to the pulmonary lesion. Some patients are extremely sensitive to this mode of using the remedy, being more affected by it than the other methods. Each case must be closely observed and treated on its individual indications. In a number of cases where there was much cough, and where the strumous cachexia was pronounced, he has used hypodermically a 5- to 10-per-cent. solution of iodoform in the guaiacol, and has also used the same formula in capsules, but was unable to observe any more favorable results than with the plain guaiacol. The buttock is the most favorable region for the injections, as no vein of sufficient caliber will be encountered.

In every case in which guaiacol is used hypodermically it is, sooner or later, distinctly tasted by the patient a few minutes after inoculation, and this lasts a considerable time.

NEUROLOGY AND PSYCHIATRY

Department Editor
PEARCE BAILEY, M.D.

Collaborators

ALBERT WARREN FERRIS, M.D., LEWIS A. CONNER, M.D.,
THOMAS PECK PROUT, M.D., and L. PIERCE CLARK, M.D.

Craniometry and Cephalometry in Relation to Idiotcy and Imbecility.—FREDERICK PETERSON (*Amer. Jour. of Insanity*, July, 1895; *Internat. Med. Mag.*, Vol. IV, 1895, p. 857)

In a well-illustrated article on this subject the author shows that the circumference of the skull averages 52 ctm. in men, and 2 ctm. less in women, with a physiological variation from 48.5 to 57.4. The scalp and hair superadd about 3 ctm.; hence, in cephalometry about 6 per cent. should be deducted to obtain the measure of the skull. A rough empirical estimate is that where the circumference of the skull is 50 ctm., its volume will be about 1350 c.c.

Excessive prognathism is found in criminals, in microcephali, and in cases of hemi- and paraplegia spastica infantilis.

A skull below the normal type in volume belongs to an abnormal individual.

Under-typical measurements of the head should always lead us to entertain the suspicion of defective cerebration.

Abnormal smallness of any part of the skull permits the conclusion that the part of the brain in its neighborhood is imperfectly developed.

Excessive development of the head has a double signification. It is always pathological, but may mean abnormality or successful compensation. Wormian bones are also doubly significant. They either represent a pathological process or a successful effort of nature in repair.

Hemiplegia spastica infantilis, epilepsy, and intellectual or ethic weakness often exhibit unilateral aplasia of the skull.

Dr. PETERSON gives a condensed table of the 13 principal measurements for average males and females with physiological variations, and the results of the examinations of 19 paralytic imbeciles. The greatest transverse diameter was found to be below the normal average in the 11 men, and in all but one of the women examined. The binauricular diameter was lower than the average in all the cases.

The Morbid Anatomy of a Case of Infantile Paralysis.—TREVELYAN (*Brain*, 1895, LXX-LXXI, p. 248)

The studies were made on a case which 11 months previously had survived an acute attack of infantile spinal paralysis involving all four extremities. Death was due, finally, to independent causes.

The tissues were prepared after the rapid bichromate method and stained according to WEIGERT and PAL.

The changes which were found in the ganglion cells of the anterior horn consisted of shrinkage and destruction of the cell, with a stippling of its protoplasm. The nucleus and nucleolus did not disappear early.

There was a considerable conservation of the cells lying in the lateral horns. The nerve fibrils in the gray matter were atrophied and varicose, and some had completely disappeared. The anterior roots seemed fewer than normal, but the posterior

Roots were intact. There was overgrowth of the neuroglia of the gray matter with disappearance of some of its more delicate elements. The gray matter presented an increased vascularity, and contained a general cellular infiltration, as well as a perivascular round-cell exudate. There was also an increase of cells around the central canal. The changes in the white matter were much less obvious, though distinctly present.

This case furnishes additional confirmatory evidence of the now generally accepted view of the vascular and interstitial origin of anterior poliomyelitis.

In CHARCOT's original studies he considered the changes to be primarily in the ganglion cells themselves, but in recent years examinations of cases which died shortly after the paralysis had commenced have shown conclusively that the process originates in the blood-vessels and neuroglia. SIEMERLING and GOLDSCHIEDER are supporters of this view, which has received its best demonstration in the researches of RISSLER (*Nord. med. Arkiv.*, 1888, XX, 22) on cases which died in the Stockholm epidemic of 1887.

Nomenclature of Nerve Cells.—BAKER (*N. Y. Med. Jour.*, March 21, 1896)

After a critical review of the nomenclature used at present by various authors, the writer suggests this classification and terminology, devised by himself:

Neural elements, neurones, divided into:

1. Collectors, or esthesioneurones:
 - (a) Scattered cells or sporadoneurones;
 - (b) Cells collected in ganglia or ganglioneurones.
2. Associators, or zygoneurones, comprising:
 - (a) "Short-path" cells, or brachyneurones;
 - (b) "Long-path" cells, or teleneurones.
3. Dischargers, or dynamoneurones:
 - (a) Cells connected with muscles, myoneurones.
 - (b) Cells connected with glands, adenoneurones.

When Should We Trephine in Epilepsy?—MASON (*Med. News*, March 21, 1896)

The author, after presenting an analysis of 70 operative cases of epilepsy, draws the following conclusions as regards prognosis after surgical treatment:

- (a) A certain small percentage of the cases will be cured;
- (b) A certain larger percentage will be improved;
- (c) An even larger percentage will not be improved at all;
- (d) An operation upon almost any case will produce a temporary cessation of fits.

The Changes of the Central Nervous System in Polyneuritis.—SOUKHANOFF (*Arch. de Neur.*, 1896, I, No. 3)

Changes in the central nervous system, especially in the spinal cord, have been reported by numerous investigators, notably by EICHORST, WILKIN, SHAFFER, and KOJRWNIKOW. In several autopsies on patients dying with the symptoms of multiple neuritis, K. found swelling of the axis-cylinders, infiltration with granular bodies, and vacuolation of nerve-cells. PAL found degeneration of the posterior-root zone and of Lissauer's tract. CAMPBELL concludes that degeneration in the spinal cord is a constant accompaniment of degeneration of the peripheral nerves.

The case reported in the present article was one of multiple alcoholic neuritis, which finally died of phthisis. Microscopic examination showed a typical degeneration of the peripheral nerves. In the spinal cord, examined by the Marchi method, were found a characteristic degeneration of Goll's column reaching to the nucleus gracilis; and scattered degenerated fibers throughout the cord with considerable involvement of both anterior and posterior roots. No lesions of ganglion cells were seen in sections stained according to Nissl's method.

MATERIA MEDICA

Department Editor

WILLIAM FANKHAUSER, M.D.

Prescription Notes

At a recent meeting of the Liverpool Pharmaceutical Students' Society, R. H. MITCHELL submitted a prescription which he had to compound recently—viz.:

Iron and Quinine Citrate	80 grn.
Croton-chloral Hydrate	90 grn.
Tincture Gelsemium	2 fl. dr.
Water	to make 8 fl. oz.

The croton-chloral hydrate induced a thick precipitate to deposit on the sides of the bottle in a solid mass. By the use of mucilage, triturating it with the croton-chloral, and then adding the iron and quinine dissolved in half of the water, a good mixture was obtained.

A lot of pills of $2\frac{1}{2}$ grn. each of zinc valerianate and extract of hyoscyamus, when made up by Mr. MITCHELL, became very soft and took a large quantity of absorbent powder to mass them. It was suggested that a *dried* extract of hyoscyamus be used.

Mercuriodohemol as an Antisyphilitic.—J. DIXON MANN (*Med. Chronicle*, 1896, IV, p. 346)

Mercuriodohemol is an alternative and hematinic alluded to before in this journal. It is an odorless, brown powder, insoluble in water. It contains, besides hemol, 13 per cent. of metallic mercury and 28 per cent. of iodine. It is best administered in pills, containing 2 to 3 grn. (0.13 to 0.2 gme.) each, which may be given at the rate of three a day. This dosage may be increased if needed, but probably the larger of the doses named will be sufficient in most cases.

Dr. MANN has employed mercuriodohemol in various forms of syphilitic disease, including papular syphilides with mucous patches, psoriasis, circinate syphilides, syphilitic iritis, and two cases of primary syphilis. After a preliminary trial of 2-grn. doses, he subsequently gave 3 grn. pro dosi.

The mildness of the remedy was shown by the fact that in one or two instances only were any signs of the toxic action of mercury produced, although the drug was continued in many of the cases for several months. The symptoms of mercurialism that did occur were limited to slight swelling of the gums with some increase in the quantity of saliva. On withholding the pills for a few days the symptoms disappeared without treatment, and the pills were then resumed and continued. In four cases slight diarrhea was produced, which passed away without the pills being discontinued. As regards the action of the drug on the skin diseases, and on the other symptoms of the disease for which it was administered, it fulfills all the conditions of a mild prepara-

tion of mercury, and possesses the great advantage that it can be taken for a long time without causing salivation. The iodine it contains probably aids the mercury in its action on the skin diseases; when the squamous stage is reached mercuriodohemol appears to act more quickly than blue pill or calomel.

It was to be expected that the mercurial treatment would produce an improvement in the patients' general condition as well as on the local appearances, and this occurred. How much of the general improvement was actually due to the iron of the hemol the author cannot say; but he is disposed to prefer mercuriodohemol to any other mercurial preparation in cases of anemic and weakly folk who need mercury.

New Disinfectant from Petroleum.—S. T. BAR-TOCHEVITCH (*Sem. méd.*, 1896, XVI, p. 18)

As is known, when crude petroleum is subjected to fractional distillation, a series of commercially important products are obtained, such as kerosene, benzin, paraffin, vaselin, etc. At the end of these processes there remains a residue, which according to the author may be utilized for the preparation of a substance possessing strong antiseptic properties and well adapted for disinfection.

This substance may be prepared by adding to 100 parts of the petroleum residue 20 parts (by volume) of concentrated sulphuric acid, shaking the mixture, and setting it aside in a cool place for 24 hours. At the end of this period of time a precipitate resembling tar forms, which occupies about one-third the volume of the original mixture; floating upon the top is a blackish, opalescent liquid. This liquid is decanted, and to it is gradually added a 10-per-cent. solution of potassa. The quantity of the solution added should be somewhat less than the volume of the liquid taken. The new mixture is shaken until a homogeneous, yellowish-brown, soapy liquid is obtained, which is the substance in question.

From this liquid a 5-per-cent. emulsion may be made, as follows: To 50 c.c. of the mother-substance, contained in a bottle, 950 c.c. of water, at 75° C., are added, the whole well shaken, and filtered through cotton. Thus a milky liquid is obtained which contains the disinfectant in solution, certain fatty bodies emulsified, and potassa. After two or three days the fatty substances rise to the top of the liquid, but they may again be emulsified by simply agitating the mixture.

Bacteriological investigations have shown the author that the mother-liquor kills pathogenic germs in 40 minutes; with the 5-per-cent. emulsion the same results were obtained in 48 hours.

Added, in the proportion of 10 per cent. by weight, to fecal matter, the mother-liquor quickly destroyed the odor of the excrements, the odor at first becoming faintly ammoniacal, and disappearing in two to three days. This substance constitutes an excellent means, Dr. BARTOCHEVITCH maintains, to disinfect fecal matter, sputa, and other excrements of the organism, as well as privies, waste-pipes, etc. It suffices to incorporate it in the proportion of 2 per cent. to obtain the desired effect.

The 5-per-cent. emulsion may be employed in all cases where the use of an antiseptic solution seems indicated: for disinfecting rooms, wooden or metallic objects, etc.

As advantages of these two preparations over the antiseptics in common use are mentioned inodorousness, non-toxicity, and cheapness of production.

SURGERY

**OPHTHALMOLOGY, OTOTOLOGY, RHINOLOGY,
LARYNGOLOGY, DERMATOLOGY, ORTHO-
PEDIC AND GENITO-URINARY SURGERY**

Department Editor
SAMUEL LLOYD, M.D.

GENERAL

In charge of **B. FAROUHAR CURTIS, M.D., WILLIAM B. COLEY, M.D., E. M. FOOTE, M.D.**

Peritoneal Sponges.—(*Centralbl. f. Chirurg.*, 1896, p. 191)

In the last congress of German surgeons, SÄNGER, of Leipsic, objected to the use of dry sponges in abdominal operations, on account of their mechanical injury to the peritoneum, and the adhesions which result therefrom. He prefers sponges wrung out in a solution of common salt and calcined sodium carbonate. This solution was first recommended by TAVEL. In 157 laparotomies in which SÄNGER has used it there has been no death from infection nor from intestinal obstruction. The formula given is: Sodium chloride, 7.5 gme.; sodium carbonate (calcined), 2.5 gme.; water, 1 liter.

The Retro-buccal Method for Exposing the Third Branch of the Trigeminal.—KRÖNLEIN (*Beiträge zur klin. Chir.*, XIV, No. 3, p. 725)

The author reports two cases operated by this method.

The operation is not dangerous, is simple, and gives the least amount of interference with function. In a few days the patients were well, and only a very fine linear scar was left on the cheek; the facial nerve, Steno's duct, and the muscles of mastication were not injured.

In the second case he succeeded, with the aid of Thiersch's nerve curling, in eliminating the infra-maxillary nerve, even in its intracranial course, through the Gasserian ganglion, together with a portion of the latter. Both operations illustrated the possibility of eliminating the trigeminal nerve, even intracranially, by an extracranial operation.

[This seems an uncertain and unscientific method of destroying the Gasserian ganglion. Even though it has been successful in these two instances there will undoubtedly be many others where the nerve will give way during the curling, leaving a well-defined stump, which in all probability will become the point of fixed pain, necessitating the Krause-Hartley operation finally.—ED.]

A Case of Chondroma of the Mammary Gland.—

FR. HAPPEL (*Beiträge zur klin. Chir.*, XIV, No. 3, p. 720)

The author reports a case in which the diagnosis was made of cystic enchondroma of the mammary gland.

The patient, a woman of 33, noticed at the age of 23 a hard nodule in the external upper portion of the right mamma. The following year, during her first pregnancy, it grew to the size of a goose's egg. Up to 1894 it remained stationary. She was then confined for the fourth time. After this it rapidly increased; but there never was any pain. The gland was three times larger than the other. The tumor appeared to be made up of several nodules, some of the size of a pigeon's egg. The superficial veins

were dilated, and the nipple obliterated. The skin was movable. There was a distinct division between the tumor and the normal tissue. Axillary glands could not be palpated.

On section a large cavity was found in the middle of the tumor, which consisted of two larger and one smaller cavities; a hemorrhagic-mucous fluid escaped. The thickness of the wall was about $1\frac{1}{2}$ to 2 ctm. Macroscopically, this seemed to be hyaline cartilage.

Microscopic examination revealed islands of hyaline cartilage, which were divided by numerous connective-tissue septa. In the last a large number of vessels could be seen. In numerous spots of hyaline cartilage retrogressive metamorphosis was observed, which gave rise to mucous degeneration and development of cysts. An area of sarcomatous tissue was also found. This was on the lower pole of the tumor, and was probably due to an especially energetic proliferation of the connective-tissue cells, thus causing this secondary small sarcoma.

There is only one similar case in literature.

Acute Osteomyelitis of the Spine.—MULLER, Aachen (*Deut. Zeitschr. f. Chir.*, XLI, No. 6, p. 445)

Acute osteomyelitis of the spine is rare. There are very few cases on record. The author reports a case, the disease affecting the dorsal vertebrae. Dislocation of the bones could not be found, and the pressure symptoms had such a stormy advent that they could only be produced by a rapidly developed edema of the cord due to pressure in the canal, but lasting only a few days. Prodromal irritation symptoms as they appear in tubercular processes were absent. All this led to the doubt of the vertebral affection being tubercular. The rapidity with which the abscess healed after only a careless removal of the abscess wall is a point against tubercular process.

Acute osteomyelitis may affect any portion of the spine, or any part of a vertebra, or several parts at the same time. Very often symptoms of central nervous disturbances appear, which may lead to the diagnosis of cerebro-spinal meningitis or to spinal paralysis, as in the author's case. It seems that many cases of acute febrile spinal paralysis, spinal abscesses, or furibund meningitis, etc. which die belong to this disease. If the arch is involved, the prognosis will be better, and the abscess can be expected earlier, and consequently opened earlier, thus saving injury to the cord.

Prognosis depends on early diagnosis and early interference. Early opening is very important.

GENITO-URINARY

In charge of GEORGE KNOWLES SWINBURNE, M.D.

Chronic, Incomplete Retention of Urine with Distention, Treated by Catheterization, Progressive and Antiseptic Evacuation; Cure without Vesical Infection.—MICHON (*Ann. d. Mal. d. Org. gén.-urin.*, 1896, p. 157)

The title tells the story, but the introduction of a patient to catheter life without infecting his bladder is always interesting, and the method by which it has been successfully accomplished is worthy of careful study and imitation.

The patient, attended by Prof. GUYON, was 80 years old, in good health till, beginning of '95, he began to suffer from frequency, urinating four or five times at night. Once or twice there was inconti-

nence at night. In August his general health began to fail, had loss of appetite, with special repugnance to meat or bread; there was continual constipation, rapid loss of strength, emaciation, a yellowish color of skin, a great tendency to somnolence, the symptoms of chronic urinary intoxication.

In November GUYON was consulted. He found the bladder distended to a point above the umbilicus. The right kidney could be felt by palpation. The urine being still clear, catheterization was decided upon. The first catheterization took place in the morning, under every antiseptic precaution. The glans penis and meatus were washed with 1:1000 bichloride solution, the urethra irrigated with boric-acid solution, the catheter, a Nélaton No. 16, boiled for 10 minutes immediately before operation. The evacuation was incomplete, and a certain quantity of boric solution was substituted gradually for the urine, and left in the bladder. A second catheterization was made in the evening. There had been no urination during the day, and the bladder was above the umbilicus. Following day same treatment. The vesical distention was increased, and severe pain occasioned which catheterization relieved. Catheterization was then made three times a day, and a stiffer catheter was used. After the fourth day the evacuation was complete, 700-800 gme. withdrawn each time. There was no spontaneous urination in the interval, and no desire to urinate. The same precautions were used each time, and lavage of bladder made. At the end of a week the polyuria diminished; in three weeks the appetite returned. On the twenty-third day the patient was allowed to catheterize himself, using the same precautions, scrubbing his hands, and washing off in bichloride solution, etc. At no time did the urine become cloudy. On January 25 the urine was clear, general condition good, appetite better than for several years. Patient resumed his life as before, going out every day.

Although the title says "Cure without Vesical Infection," the reader is left to infer that catheterization is continued as before, and unfortunately the author omits to say whether there is any spontaneous urination.

Kidney Symptoms After Falls From a Height.

—HOLZ (*München. med. Woch.*, 1895, p. 795)

HOLZ relates eight cases of lads of 14 years, who fell from considerable heights, and in all the urine showed some damage to the kidney, although no direct contusion had been received by that organ. In two cases there was fracture of the skull, and in these the kidney escaped with the least injury, a result which he explains by supposing that the yielding of the skull broke the shock for the rest of the body. In two cases which terminated in death (not including the fractures of the skull, both of which recovered) he was enabled to examine the kidneys. In one hemorrhages were visible to the unassisted eye, while in the other, although countless microscopic hemorrhages were found, they could not be seen otherwise. The symptoms in these cases were the appearance of hematuria and albuminuria six to twenty-four hours after the injury, accompanied by casts in the urine. The casts at first were hemorrhagic, then the corpuscles disappeared, their place being taken by epithelial cells. There were no constitutional symptoms during the albuminuria, and in two to four days the urine became normal and so remained. Microscopically, the changes in the kidney resembled those of acute parenchymatous nephritis, the glomeruli remaining healthy. The

author likens this injury of the kidney to that of the brain, known as cerebral concussion, and believes that it would also be found to exist in the other solid abdominal organs, as rupture of those organs from similar but more violently acting causes is common.

Primary Union after Suture of Vas Deferens in Man.—PARLAVECCHIO (*Gaz. degli ospedali*, 1895, No. 105, p. 1093)

PARLAVECCHIO had the misfortune to tear across the vas deferens while operating upon a young man for the radical cure of hernia. He completed his hernia operation, then cut the torn ends of the vas obliquely, and united them by four very fine silk sutures, passed like Lembert sutures of the intestine. The wound in the duct was thus united so that the line of union was oblique, with the idea that there was less danger of subsequent circular constriction. Primary union was obtained, and at an examination of the patient two years and three months later no nodule or other indication of the wound of the vas could be found. The hernia remained without recurrence, and there was no dilatation of the vas below the point of injury, and no swelling or atrophy of the testicle or epididymis. The prostate was not examined. The testicle was in every respect like its fellow, and there was no loss of sexual power.

The Treatment of Hypertrophied Prostate by Castration.—O. FAISST (*Beiträge z. klin. Chir.*, XIV, No. 3, p. 789)

The author reports a case from the private practice of Prof. BRUNS.

Patient, 62 years old, using a catheter three to four times a day for the last six months. Between catheterizations he suffered considerably, and succeeded in pressing out one to two tablespoonfuls of urine, followed by great pain. By the exercise of care he escaped cystitis or acute retention, but was forced to stop work. Double castration was performed; from the seventh day after the operation up to date (four months after), the patient never had to use a catheter, he urinates at long intervals, is free from any inconvenience, and resumed his work. This certainly illustrates the value of this operation.

In eight days the prostate diminished one-third, was softer and less prominent. The general and psychic condition of the patient is thus far normal.

The author considers double castration simple and not dangerous, and, thus far, the best procedure for the radical cure of hypertrophied prostate.

[That danger does follow the operation has been abundantly proved by the American observers. Not death alone, but mental disturbance has followed in some instances, and one should be careful about too emphatic an assurance of the harmlessness of the procedure.—ED.]

A Case of Carbolic-acid Poisoning in an Infant after Circumcision.—BOGDANIK (*Wiener med. Presse*, 1895, p. 1257)

BOGDANIK relates the case of an infant circumcised by a rabbi, and the penis dressed with cotton wet with an approximate 5-per-cent. solution of carbolic acid. The dressing was renewed the next day by a midwife, who observed at the first dressing that the diaper was stained a dark color by the urine. Collapse set in and the child died 48 hours after the operation, with typical symptoms of car-

bolic-acid poisoning, which was confirmed by the autopsy. Locally the acid had produced a small slough. The author refers to the case reported by MELTZER (*Med. Monatsschr.*, New York, April, 1889), in which death was caused in three days by dressing a circumcision wound with a 4-per-cent. solution of carbolic acid.

EYE AND EAR

In charge of WILLIAM OLIVER MOORE, M.D.

Treatment of Simple Chronic Glaucoma.—ABADIE (*Ann. d'Oculistique*, Nov., 1895)

The writer says: Acute glaucoma and inflammatory glaucoma, proceeding by successive attacks, are cured by iridectomy. The same is not true of simple chronic glaucoma with elevated tension, which develops slowly and progressively, and in which the intraocular pressure increases without giving rise to appreciable reactions.

Iridectomy and sclerotomy have no curative action, and, in spite of these operations, the momentarily diminished intraocular tension resumes a higher degree than the normal, and final loss of vision is the rule.

The systematic use of a myotic collyrium of eserine or pilocarpine of 1 to $\frac{1}{4}$ per cent., according to the tolerance of the patient is advised. Internally, bromide of potassium and sulphate of quinine should be given.

Successful Removal of a Piece of Steel from the Vitreous Chamber by Means of an Electromagnet.—OLIVER (*Am. Jour. of Ophth.*, No. 146)

The author reports the case of a male, aged 35, who in 1891 received an injury, a piece of steel entering the eye, passing through the cornea, iris, and lens, and lodging in the vitreous chamber. The foreign body was removed by means of an electromagnet, thirty-five cells being used. The patient was discharged in six days. The eye is perfectly quiet, and nothing but the opaque lens remains. Perception and projection of light are good.

The Question of Operating in Chronic Glaucoma.—PRIESTLY SMITH (*Brit. Med. Jour.*, 1816)

The author, in the discussion on this subject, concludes as follows:

1. It is right to operate at any stage of the disease so long as there is vision, and the general condition of the patient warrants it.

2. The immediate safety of the eye depends on the avoidance of injury or displacement of the lens, and deep-seated hemorrhage. Making a scleral puncture to slacken the eye immediately before the iridectomy is a valuable safeguard against injury of the lens. The patient should be kept quiet.

3. The ultimate success of the operation depends largely on the formation of a permanent sub-conjunctival fistula, which keeps the eye slack.

4. Permanent retention of vision is not always secured by operation, especially if the optic nerves be partly atrophic.

On Injecting Chlorine Water into the Vitreous.—BERRY (*Brit. Med. Jour.*, No. 1816)

The writer reports his method as follows: He makes an incision through the conjunctiva at the equator between the inferior and external recti-tendons. A Graefe knife is then plunged through the denuded sclera. The nozzle of a hypodermic syringe is next introduced into the middle of the

vitreous, and four minims of freshly prepared chlorine water slowly injected. The wound is cleaned with chlorine water, and then drawn together by sutures. Moderate chemosis follows, but no other harmful effect. Where purulent infiltration of the vitreous had already set in, the process was aggravated by the injection. He hopes that these injections will prevent the beginning of septic inflammation, especially after the removal of pieces of metal from the eye.

Foreign Bodies in the External Meatus (*The Clinical Chronicle*, No. 1)

The report of the Elsborg Nose, Throat, and Ear Dispensary, Cincinnati, shows that the following 25 foreign bodies were removed from the external meatus:

White beans (4), rubber ends of lead-pencil (3), glass beads (3), toothpick (1), blotting-paper (1), cockroaches (2), bedbug (1), wing of fly (1), broken end of lead-pencil (1), cotton (2), pebbles (2), tinfoil (1), garlic (2), bread-crust (1). One hundred and thirty-nine cases of impacted wax were also seen and the accumulations removed.

Subjective Methods of Optometry.—BULL (*Ophth. Rev.*, Sept., 1895)

B. gives the following rules for the purpose of avoiding these errors as far as possible: Before endeavoring to correct the general ametropia the weakest meridian of refraction is sought. This is rendered slightly myopic, and then the astigmatism is exactly determined with a concave cylindrical glass with a horizontal axis. Then the cylindrical glass being fixed, the correction of the general ametropia is completed by finding the spherical glass according to the ordinary rules. In other words, the astigmatism is rendered myopic and then measured at the *punctum remotum*.

Keratoplasty.—SUKER (*Toledo Med. and Surg. Rept.*, 1895, No. 11)

The author, in a *résumé* of the subject, says: It was first performed in 1823 by RICKE. In 1839 the medical faculty of Munich offered prizes for successful transplantations. The results were not satisfactory for any length of time, so it fell into disuse for a second time about 1843. In 1855 NUSSBAUM suggested the insertion of a "cornea artificialis," or a stud of glass to be inserted into the opaque cornea. This procedure gave only temporary vision, and eventually produced inflammation of the globe. Transplantation of the cornea of a rabbit upon the eye of another rabbit was successfully accomplished in France and Germany; the graft would heal, but transparency would not continue.

WOLFE transplanted the corneæ of lower animals on the human eye without success; the same operator transplanted the cornea of a recently enucleated human eye to the eye of an adult; the graft united, but the cornea became opaque in six months. HIPPEL left the membrane of Descemet intact, and placed the graft on it. These cases have not proved more successful than the former. Embryonic tissue of the cornea has been tried, but with the same failures. SUKER's operations, 11 in number, have all been done on the lower animals. Union was obtained in all, but no permanent transparency.

OBSTETRICS; GYNECOLOGY; PEDIATRICS

Department Editor

THOMAS S. SOUTHWORTH, M.D.

Collaborators

GEORGE G. WARD, Jr., M.D., GEORGE R. WHITE, M.D.,
EDWARD N. LIELL, M.D., WILLIAM B. NOYES, M.D.

Lead Paralysis in Infancy.—NEWMARK (*Med. News*, 1895, No. 19)

Lead paralysis in childhood is uncommon. The writer reports a case in a girl, 8 years of age, with a negative previous history, who, in November, 1893, was attacked by gastro-intestinal symptoms of the nature of vomiting, obstinate constipation, and abdominal colic. She was treated for indigestion and when, a month later, symptoms referable to the mouth appeared, the diagnosis of aphthous stomatitis was made. In January, 1894, the author found her profoundly anemic, with a characteristic blue line on the gums, and a paralysis of the hands and feet, especially of the muscles of the arm supplied by the radial nerve. There were no fibrillary contractions, but a convulsive tremor was present. Reflexes of the triceps were preserved on both sides. Reaction of degeneration. Normal sensation. After three months the child began slowly to recover. The cause was obviously a lead paralysis, and originated in the careless use of white-lead paint in the bed in which the child had slept.

There is probably more of the subacute form of lead-poisoning in children than is diagnosed. Many toys are painted with lead colors.

Action of Salophen in Chorea.—PIERRE MARIE (*Soc. méd. des Hôpitaux de Paris*, March 31, 1895)

MARIE has experimented with the therapeutic effects of salophen in various diseases, and especially in chorea. A young girl, aged 16, presented all the symptoms of a severe attack of Sydenham's chorea. On the ninth day of the affection he prescribed 4 gme. of salophen in six doses. The medicine was followed by an improvement, and a complete recovery at the end of ten days. The author does not venture to assume that this remarkably rapid recovery was due to the action of salophen alone, but he holds that the chorea was of the type known as Sydenham's chorea, which is not a hysterical chorea; and, in other words, there was no element of suggestion in the case. Salophen is a drug affording all the medical qualities of salol, but is less toxic in its action. It has been used with some success in acute rheumatism, neuralgia, and sciatica, gastro-enteritis, and intestinal dyspepsia with flatulence.

Supernumerary Ovaries.—OTTO ENGSTRÖM, of Helsingfors (*Monatssch. f. Geburtsh. u. Gyn.*, III, No. 1, p. 13)

According to the author, there are two distinct kinds of supernumerary ovaries. One is due to anomaly of development, in which three ovaries are formed instead of two. These cases are rare, and their existence was doubted by ROKITANSKI, KLOB, and others. WINCKEL reported the first case of the kind in 1881 (*Lehrbuch*, 1890, p. 617), in which ovaries on either side were normal, but on the right side and in front of the uterus was a supernumerary ovary

larger than either of the others, and attached to the uterus by a ligament originating from the right round ligament. The ovary was situated in a fold of peritoneum connected with the bladder. Other cases have since been observed by different writers.

Besides cases of this kind, there are supernumerary ovaries due to division of a normal ovary by inflammatory processes and the formation of bands. E. presents photographs of a case of this kind. The patient was 55 years old and was operated upon for a myoma. She had suffered many times from peritonitis. On the right side was found an ovary nearly divided into two parts by the presence of bands. The part near the uterus appeared nearly normal, while the distal half was badly degenerated and contained blood-clots. The band of tissue connecting the parts together contained ovarian tissue.

We must therefore make a classification of supernumerary ovaries into congenital and acquired.

Kraurosis Vulvæ.—H. W. LONGYEAR, of Detroit (*Amer. Jour. Obstet.*, 1895, No. 216, p. 823)

The etiology of this disease is unknown, the pathology not well understood, and the therapeutics are of doubtful value. Few textbooks mention it. The writer believes its occurrence is much more frequent than is usually supposed, it being frequently diagnosed as pruritus, vaginitis, etc. The meaning of "Kraurosis vulvæ" is shrinking of the vulva, and it was so called by BREISKY, of Prague. WEIR, of New York, has called it "ichthyosis vulvæ," and TAIT "serpiginous vascular degeneration of the nymphæ."

L. believes that it is due to some defective nerve action, probably reflex, and not to a local or constitutional affection outside of the nervous system. According to the author's observations the disease occurs in women past their fortieth year, and is coincident with the menopause.

The clinical features are characteristic. The hair around the vulva is found thin and dry, and later almost absent, the vulva appears small and infantile, the labia minora small and shrunken, and later smoothed off almost even with the labia majora. The color of the skin will be found pale and devoid of pigment, while the muco-cutaneous surface will be studded with a number of irregular reddish-brown spots slightly depressed below the surface. The parts are usually dry, and sometimes the mucous surface is cracked and abraded. A slight, brown, purulent discharge may be seen. The spots are confined entirely to the vestibule; they disappear late in the disease, and the mucous membrane becomes white and skinlike in appearance. It will not be possible to retract the perineum; the natural elasticity of the parts is entirely absent. The brown spots are very sensitive, the slightest touch causing pain; therefore, coitus is not possible. The author describes a case which came under his care, and the operation he performed. He dissects the entire diseased mucous membrane away, and then, loosening the surrounding tissue, brings it down and stitches it to the skin margin. He got a very good result, so far as relieving the patient of pain, but the rigidity remained. After the diseased mucous membrane was removed, he noticed fibrous bands underneath, which he believes had replaced the loose cellular tissue, thus causing the rigidity, and also by contraction causing the diminished blood supply. He advocates removing this fibrous tissue, and hopes to get a complete cure by doing this in a second operation on the case reported.

On Primary Malignant Tumors of the Clitoris.—

CHARLES G. CUMSTON (*Annals of Gyn. and Ped.*, 1896, No. 5, p. 268)

All the ordinary causes of cancer in general may apply to epithelioma of the clitoris. This neoplasm usually occurs after the menopause. Former labors, trauma, syphilitic lesions, psoriasis, eczema of the vulva, and vaginal discharges, are given as the predisposing causes.

The affection appears in all classes of society, though mainly the result of poverty and vice.

Its development is insidious, the patient subsequently complaining of heat and burning at the vulva; again, a pruritus vulvæ is often an early sign, accompanied by more or less fetid discharge. Upon examination, a tumor or an ulceration is detected—the former more frequently—which proves to be a nodular type of epithelioma. At first limited to the clitoris, the growth tends to invade the neighboring parts. The inguinal glands are sometimes involved.

Simple or melanotic sarcoma, as also myxosarcoma, of the clitoris have also been occasionally met with. These sarcomata are usually rapid in growth. Neoplasms about the clitoris generally give rise, by extension, to pain and difficulty in micturition, as well as in coition, walking, etc. The patient is usually unaware that such a condition is present until these growths have materially progressed, and it is then that the physician is first consulted. Complete excision or dissection by means of the knife and thermo-cautery, preferably the former, is the line of treatment advised.

Inoperable cases call for medical treatment, though Prof. Vulliet's method of intraparenchymatous injections of alcohol is referred to.

Typhoid Fever in Childhood.—JOHN LOVETT MORSE (*Boston Med. and Surg. Journal*, 1896, XXXIV, No. 9)

In a series of 3680 cases of typhoid fever in the Boston City Hospital during the last 13 years, there were 284 cases in children under 15 years. Of these 1 per cent. were under 5 years, and 27 per cent. from 5 to 10. These figures differ from the percentage found in the collected cases of HENOCHE, ROETH, EARL, SCHMIDT, and WOLBERG, who, out of 686 cases of typhoid fever in childhood, report 11.5 per cent. under 5, and 48 per cent. under 10. While inferring from his own statistics that cases of typhoid are rare in children under 2 years, probably on account of the lack of exposure of infants during the nursing period, the author admits that the small number of cases on record is chiefly due to the fact that the cases, when they do occur, are generally not recognized.

The writer makes a careful analysis of all the symptoms of the disease in *childhood*, but fails to give any new or valuable information that will make it possible to diagnose the obscure cases under 3 years from broncho-pneumonia with indefinite physical signs, a long-continued gastro-enteritis, or a subacute meningitis, which three conditions mask many cases of enteric fever in infancy. Of his own three cases under 5, who were 2½, 3, and 3½ years old, the onset was slow in 2 cases and acute in 1. The fever lasted 10, 20, and 21 days, respectively; the tongue was coated in 1 case, there was no vomiting, all had diarrhæa; distention of the abdomen was present in 2 cases, slight tenderness in 1 case.

Rose-spots were present in two cases, absent in one. Enlargement of the spleen and mild bronchitis in one case, severe bronchitis which masked the other symptoms in another. Headache in one

case. Stupid mental condition in two, the third having opisthotonos and spells of loud crying. All recovered without relapses. Otitis media complicated one case.

The author concludes that typhoid is about as frequent in children from 5 to 10 as in older children. The mortality in cases under fifteen is about 6 per cent., or half that in adults. The rate of mortality increases directly with the age. The course is shorter and less severe than in adults; this, as well as the low mortality, being due to the slight intensity of the intestinal lesions. The severity increases directly with the age. The onset is acute in about one-third of the cases in the second five years and in about one-fifth of those in the third five years. Nose-bleed occurs in about 50 per cent. of all cases and is often severe. The average duration of the fever is a little less than three weeks, being somewhat shorter in younger than in older children. The proportion of cases in which the duration is not more than ten days is twice as great in children under ten as in those over ten. The temperature curve is less typical than in adults. The remittent second stage is absent in more than 50 per cent. of the cases under ten and in 40 per cent. of those between ten and fifteen. Relapses are nearly as frequent in children as in adults and follow the same course. The tongue is rarely as dry as in adults. Vomiting is a common initial symptom and is not very infrequent during the course of the disease. It is not an unfavorable symptom. Constipation is more common than diarrhea, especially in younger children. Distention is present in from 50 to 70 per cent. of all cases, and is more common in younger children. It is not infrequently extreme. Tenderness is present in about half of the cases, but is rarely very marked. Hemorrhage is very rare under ten years, and much less common above that age than in adult life. It is fatal in about half of the cases. Perforation is extremely uncommon. Rose-spots are present in from 60 to 70 per cent. of all cases. The spleen can be demonstrated clinically to be enlarged in from 80 to 90 per cent. of all cases. This enlargement is usually moderate, but may be extreme, more commonly in young children. Clinical bronchitis occurs in about 40 per cent. of all cases. In some cases it may mask the abdominal symptoms, especially in younger children. Other pulmonary complications are rare. Headache is complained of in about 75 per cent. of all cases, but is rarely severe. Marked nervous symptoms occur in at least 25 per cent. and are equally common at all ages. The condition is one of stupor in from 15 per cent. to 25 per cent., and of delirium in the remainder. The delirium is more commonly active. Crying out at night is common, especially in young children. Meningeal symptoms are not infrequent, and are more common in young subjects. Neuritis occurs, probably, more often than is supposed. Albuminuria is common and occurs with equal frequency at all ages. Serious renal complications are rare, especially in young children.

Relief for the Totally Blind.—It is said that a Moscow physician named NOISHEWSKI, has invented an instrument which he calls the "electrophthalm," or "electric eye," that will enable the totally blind, by a sense of feeling, to observe objects which we can see with the naked eye. In the construction of the instrument, the two metalloids, *selenium* and *tellurium*, are used both of which change their quality as conductors of electricity with different conditions and intensity of light. The accomplishment of positive results is recorded.

SOCIETY MEETINGS

NEW YORK ACADEMY OF MEDICINE

SECTION ON LARYNGOLOGY AND RHINOLOGY

March 25, 1896

JAMES E. NEWCOMB, M.D., Chairman

Instruments.—Dr. L. A. COFFIN, on behalf of Dr. CHAPPELL, presented an attachment to the automatic intralaryngeal syringe which Dr. CHAPPELL had previously presented to the section. It consisted of a flexible tube fitting over the laryngeal cannula so that with the syringe in position for a laryngeal injection the flexible tube could be made to slide on down into the trachea. The injection was made by touching the button.

Dr. JOSEPH MUIR presented an intratracheal syringe. He said it held half an ounce, could be tightened by a slight movement, the quantity injected was regulated by a small ring, and the intralaryngeal tube was flexible so that it could be bent in any shape.

Aneurism of Ascending Pharyngeal Artery.—

Dr. SHARP, in presenting a case, said that the patient, 55 years of age, had an aneurism of the ascending pharyngeal artery. He presented her because the condition was a rare one. He had seen two cases with Dr. GRIFFIN, one six months ago, that gave the history of specific disease. In this case there was no such history.

Dr. J. WRIGHT said he was greatly impressed with the case, for he had seen two just like it, one in an old woman and the other in a young woman. In both of these the tumor seemed like a knuckle of the artery. He did not think this was an aneurism. It might be an abnormally large blood-vessel. A case of aneurism of the tonsil had recently been reported in Vienna corresponding to the one shown here last winter by Dr. WATERMAN.

Dr. T. P. BERENS said he could detect no thrill with his finger, but it seemed like a hard pulse. He raised the velum of the palate and the projection seemed just like a knuckle of the artery. He would like to ask if the movement were not due to the looseness of the surrounding cellular tissue.

Dr. W. K. SIMPSON said the area of diffusion was greater than it would be from an artery pulsation, which made it appear like an aneurism.

Dr. LINCOLN said he had never seen an aneurism in this region and was not able to satisfy his mind upon the matter.

Dr. MYLES said he had a case under observation somewhat similar to this one. It is in a man about sixty years of age. The vessel was straight and hard, while this one was angular, or rather in a bow-shape and soft. He had referred the case back to the general practitioner, who said that the patient had general arterio-atheromatous degeneration.

Intratracheal Injection in Diseases of the Respiratory Tract.—Dr. J. L. BARTON read the paper on this subject.

Dr. J. MUIR said that in treating diseases of the larynx and bronchi we tried to do two things—cure the disease of the mucous membrane, and relieve the cough—and these were readily accomplished by local remedies. Menthol solution not only relieved the condition, but made it better, and he used it in from 3- to 30-per-cent. solution. If 25 per cent. of alcohol be added and well shaken, it makes the solution mix well with the secretions. If there was much secretion, 2 to 10 per cent. of tincture of iodine could

be used. In atrophic laryngitis 2- to 5-per-cent. solutions of kerosene ichthyol he has found to afford speedy relief.

Antiseptics in phthisis are employed to prevent secondary infection through the air-passages. Inhalations are for that purpose better than antiseptics taken internally and excreted from the lungs; consequently the local injection of antiseptics affords the best of all methods for attaining the desired end.

The Secretary read a discussion of the paper by Dr. BARTON from Dr. C. C. RICE, who could not be present. Dr. RICE said the subject was worthy of careful consideration and an impartial trial. Its trial should be a long one, because no rapid effect from the medication was claimed, and because it was, perhaps, particularly applicable to chronic cases of bronchial and pulmonary disease; and if only slight relief in many cases of chronic tuberculosis, etc., could be obtained without the use of narcotics this method of application would deserve a conspicuous place among various methods of treatment. In skillful hands it could offer no opportunities of harming the patient, and it seemed a *reasonable* method of treatment. The use of oily sprays in the larynx had been demonstrated to be useful, and the application of medicines incorporated in an oily vehicle seemed of equal advantage, when applied by Dr. BARTON's method directly to the mucous membrane of the larger bronchi.

The treatment should not be advocated without the use of cocaine, or in the hands of unskillful practitioners, for it was not an easy practice to carry the nozzle of a syringe between the vocal bands into the trachea. The weakest solution of cocaine that would put the glottis in a tolerant state should be used; he began with 2-per-cent., and had not had to use stronger than a 4-per-cent., solution. He thought intratracheal injections were to be recommended as a substitute for the various depressing expectorants. It had always seemed to him that the application of oils to mucous surfaces acted locally as sedatives, or astringents, or stimulants, according to the medication used. Astringents could be applied to the mucous surfaces directly by the use of such volatile medicines as chloroform, thymol, eucalyptol, etc., which by their rapid evaporation quickly cooled the tissues and contracted the blood-vessels. The secondary result was stimulation, which was useful in healing ulcerations and absorbing inflammatory swellings. Dr. RICE gave the history of five cases in which he had used intratracheal medication with success, and said he believed that it would be found useful not only in allaying irritable cough, but also in abating the harassing cough of tuberculosis.

Dr. DRAYTON said some of Dr. BARTON's cases had come under his observation and the results were good. He had tried intratracheal injections on a man with specific history—long hoarseness, subacute bronchitis, and persistent cough, so that he was unable to sleep. The result was excellent; in five minutes there was great relief and comfort, and the patient reported that he slept well the next night. He thought this treatment of local application ought to commend itself to the profession in general, for he considered little or nothing could be expected of cough mixtures, and they should be a thing of the past, for if it were not for the narcotics in them there would be no result. Almost the same could be said of gargles, for by this means the posterior pharyngeal wall was seldom reached to do any good, and as for reaching the desired spot it could not be relied upon. He had for a long time opposed

the idea of introducing anything into the trachea, but he had been convinced that it could be done not only without doing any harm, but with actual good. There was no doubt in his mind that oily substances were absorbed by the mucous membrane of the trachea.

Dr. BEVERLY ROBINSON said he had had a good deal of experience several years ago with intrapulmonary injections when using that method of treating tuberculosis, but though he thought for a time that it would accomplish a great deal he had been disappointed and now did not feel like continuing in that line. He must differ from Dr. DRAYTON as to the use of cough mixtures, for he got good results, and the more his experience the more he became convinced that we are not so much wiser in our generation; and though we can't always see how putting the stomach through a course of treatment for the benefit of the upper portion of the air-tract is desirable, yet the fact remained that we do get good results from the proper use of cough mixtures. He thought the general profession held a doubting mind as to the method of treating tuberculosis by active local interference, though they were shown cases in which it seemed much good had been done; and he thought further that the present enthusiasm of treating the trachea by injection in this disease would not last. He was of the opinion that if he had a cough he would not let any man inject into his trachea, nor would he desire it in anyone for whom he had any particular affection.

Dr. J. WRIGHT said he was interested in Dr. BARTON's work, yet he must confess that he felt like Dr. ROBINSON about the matter. It had been his experience that a chronic irritating cough, if not due to emphysema or tuberculosis, was due to something higher up than the trachea—usually some irritation about the larynx, which, when chronic, was caused by some pharyngeal or intranasal trouble; yet there were cases of subacute tracheal bronchitis in which the irritation was primarily in the bronchi and trachea, and these possibly might be benefited by the injections. He was struck with the statement so often made that the treatment had begun in about the third or fourth week of the disease. That was about the time the disease got well of its own accord in many cases.

Dr. L. A. COFFIN said he had enjoyed the paper—that he felt much like Dr. ROBINSON as to having a tube or an injection put into his own trachea, but he thought he might feel entirely different on the matter had he been told that he had tuberculosis, and that the intratracheal injection offered any kind of hope or relief. He said he thought the injections could be made without harm, and in fact that he had seen apparently wonderfully good results follow both intralaryngeal and intratracheal injections.

Dr. NICHOLS said he thought the medicine carried by the oils was absorbed, but did not think the oil was. All knew it was hard to introduce the tube into the trachea, and during the last year he had gotten good results from the use of a multiple comminuter spray consisting of a series of chambers any one or all of which could be used at once. It was really a lung bath, and at the same time the mucous membrane was bathed in an oily solution. He thought the method of intratracheal application was a practicable one.

Dr. WENDELL C. PHILLIPS said he had tried intrapulmonary injections several years ago in a series of cases, and, so far as he knew, the patients were all dead. This experience had made him somewhat skeptical as to all these methods of treatment. In

subacute tracheal and bronchial cases the intratracheal injections might be helpful, but he had grave doubts as to any benefits to be received in acute cases. About four times a year he had attacks of acute catarrhal laryngitis, with loss of voice. He had treated himself, and had also been treated by various specialists, and sometimes had allowed it to go with no treatment, but had found that he recovered in about the same time whether treated or not. He agreed with Dr. ROBINSON that cough medicines were useful in many cases.

Dr. W. K. SIMPSON said he grew more conservative as he contemplated new measures which were radical in their nature. He thought it was too much to think that intratracheal or bronchial injections could cure tuberculosis, but they undoubtedly were efficacious in relieving troublesome cough. He thought from experience that intralaryngeal, tracheal, and bronchial injections were among the most rational if not the best, means of applying local applications to those parts. He agreed with the writer that we should be good chest diagnosticians so as to differentiate the various kinds of cough.

Dr. BERENS thought almost any volatile substance was absorbed by the lungs, but injection by the trachea for the disease of the smaller bronchi could hardly have any effect, as the injection of a dram or so would scarcely reach all of them.

In the treatment of the large tubes and the trachea he thought the intratracheal injections were called for. He had had excellent results in two cases in which he had tried it. He had also used the multiple comminuter with excellent effect. Rest was one of the most important factors in the treatment of acute laryngitis.

In closing the discussion Dr. BARTON said it was not claimed that intratracheal injections would cure tuberculosis, but relieved the distressing cough. He thought dispensary patients were the class in which it was hard to get favorable results, but he had patients who took this treatment, and were glad to come to his office every day for the relief it gave them. He had cured cases of trachitis and bronchitis that had resisted other treatment, and he thought the intratracheal injections were worthy of an unprejudiced trial.

SECTION ON OBSTETRICS AND GYNECOLOGY

March 26, 1896

W. R. PRYOR, M.D., Chairman

Dystocia from Unusual Size of Shoulders.—

Dr. A. E. GALLANT presented Mrs. K. R., 28 years of age, a very stout person, whom he had, with difficulty, delivered of a child on April 16, 1895. He had previously operated upon her for hernia and for appendicitis. At the time of labor, the fetus was found to be in the R. O. P. position, and the pains were weak and recurred at long intervals. After some delay the forceps was applied, the head brought down to the perineum, and the forceps removed; but it was found that after each pain the head would recede. The child became cyanosed, and there was no effort at rotation. The forceps was finally reapplied and delivery effected. The dystocia might be explained in two ways, viz.: (1) By the very large size of the shoulders, there being only a difference of $4\frac{1}{2}$ ins. between the circumference of the head and that of the shoulders; and (2) by the mother being so stout. Dr. E. A. TUCKER had informed him that out of 4000 cases of labor at the Sloane Maternity Hospital the

largest circumference of the shoulders was 43 ctm., or 1 ctm. less than in this child. Dr. GALLANT said that he desired to call attention to the fact that in operating upon his patient for hernia he had employed only a single line of silkworm-gut sutures, passed through the abdominal wall, and that, notwithstanding the large amount of adipose tissue and the strain of a difficult labor, there had been no recurrence of the hernia. The mother had made an excellent recovery after her confinement.

Dr. VINEBERG said that he had examined Dr. GALLANT's case, and had found a rather broad scar, but the abdominal contents appeared to be well supported.

Dr. GALLANT said that in recent obstetrical literature he had seen no reference made to the unusual size of the shoulders as a special cause of dystocia. If he remembered correctly, Dr. TUCKER had recently called attention to the fact that in very stout women the adipose tissue in the pelvis might prove a source of dystocia.

Twins; Arrest of Development of One Fetus.—

Dr. PHILANDER A. HARRIS, of Paterson, N. J., presented a case of this kind. The mother was a German, 31 years of age. On March 6, at noon, she had begun to have labor pains, which had continued until March 7, at 1 p. m., when she had given birth to the larger of these fetuses. It was born with the placenta, and without rupture of the membranes. Considerable hemorrhage had followed, and examination had shown another bag of waters, which had been delivered unruptured a few minutes later. In this was found the second and smaller child with its placenta. Recovery of the mother was uneventful. During this last pregnancy the mother had enjoyed excellent health. The smaller fetus measured 19 ctm. and the larger one 33 ctm. long. There was nothing abnormal in the appearance of the larger child or its placenta. The small child must have suffered an arrest of development of at least two months. The fetus and placenta were of a greenish color, but there was no evidence of decomposition. The umbilical cord was small and the fetus greatly flattened.

Dr. MALCOLM McLEAN said that the fact of there being a papyraceous fetus did not necessarily mean that there was danger to the fully developed fetus. Ordinarily the well-developed fetus did well. He had reported one such case a few years ago, in which the larger child weighed 11 pounds, and was still living and well.

Ovarian Cyst with Thick Wall.—Dr. HARRIS presented an ovarian cyst removed a year and a half ago from a woman 31 years of age. The last child had been born two and a half years previously. On July 10 she was seized with severe pain in the right iliac region, accompanied with chill, fever, vomiting, and purging. Two days later a fullness was noticed in the right hypochondriac region. A second attack of vomiting occurred within a few days, and her physician, Dr. CARPENTER, of Boonton, N. J., found a tumor rising out of the right side of the pelvis. A little later the tumor was found on the left side. Subsequently there was an attack of peritonitis. Two or three months after he had performed abdominal section, and had found the tumor twisted on its pedicle two and a half times. It originated on the right side, and at the time of the attack of peritonitis a hematocele had probably formed on one side. It was this hematocele which had thrown the tumor over to the other side.

Dumb-bell Fibroid; Abdominal Hysterectomy.—Dr. HARRIS also presented a fibroid tumor re-

moved by abdominal hysterectomy from a woman 39 years of age, who had been first seen by him about one year ago. Examination showed enlargement of the uterus, and a tumor posterior to it. She suffered so much pain that she had begged for relief.

Retroperitoneal Pelvic Abscess.—Dr. E. E. TULL presented a thick-walled abscess, removed on March 24 from a woman having a temperature of 105° F. and all the evidences of septicemia. There was a history of septicemia following childbirth. On abdominal section uterus, tubes, and ovaries were found to be normal, but in the right iliac region was found this thick-walled abscess situated below the muscle and the parietal peritoneum. The speaker said that he had seen two or three similar cases of abscess occurring in this way independently of the tubes and ovaries.

Dr. MARX said that he knew of two cases of abscess like that described by Dr. TULL, in which appendicitis had been erroneously diagnosed.

Dr. VINEBERG said that he thought the occurrence of a small hematoma during labor was not very infrequent, and that these sometimes underwent suppuration. This would explain the occurrence of such an abscess as the one now under discussion. In one case of which he had knowledge a tumor had developed within a few days after labor, and had been associated with high temperature. If the hematoma had not been promptly evacuated he thought suppuration would have resulted.

Spoon-shaped Depression of Fetal Skull.—Dr. S. MARX presented a specimen showing the so-called spoon-shaped depression of the skull occurring during labor. He said that this was quite rare in this country. The woman had been in labor for 12 hours when he first saw her, and the head was still above the brim. There was a true conjugate of 3½ ins. The fetal heart could not be detected. Version was performed and the child easily delivered. At the time of birth a deep, spoon-shaped depression was seen in the skull, and it corresponded to the position of the head—the occiput being to the left. By pressure of the parietal bone against the promontory of the sacrum this depression had been produced. The autopsy on the child showed a large quantity of old and recent blood underneath the skull. In a recent case a physician by trephining the skull succeeded in saving the child. In this case the child lived for about two hours after birth.

Dr. E. A. TUCKER called attention to the fact that these depressions in the fetal skull were not necessarily fatal. He had seen several cases of this kind, and none of these had been fatal. Where the depression was slowly formed, there was less danger to the life of the fetus.

Carcinoma of Cervix and Multilocular Ovarian Cyst.—Dr. H. N. VINEBERG presented a specimen showing a large cancer of the cervix, associated with a large multilocular ovarian cyst. Notwithstanding the extensive carcinomatous disease of the cervix, and the fact that the woman was 56 years of age, she gave no evidence of cachexia. A year ago she had had an attack of peritonitis. Owing to the very extensive adhesions of the intestine to the multilocular cyst, the operation was unusually difficult. It necessitated the removal of the peritoneum from at least two feet of intestine.

Dr. GALLANT said that it was not uncommon to find such an advanced stage of carcinoma of the cervix or vagina without any cachexia. This statement he had seen repeatedly exemplified in the Cancer Hospital, in young patients as well as in those over fifty years of age.

Dr. VINEBERG said that in view of the fact that recurrence of carcinoma was now known to be due to injury and infection of the adjacent tissues at the time of operation, he had cauterized the affected part in order that it might be handled and brought out through the abdominal wound without danger of infecting the tissues.

Hernia after Alexander's Operation.—The Chairman, Dr. PRYOR, said that he knew of 26 cases of inguinal hernia following Alexander's operation, and he wished to direct special attention to this, as Alexander's operation is recommended for simple non-adherent retroversion.

Dr. JOSEPH BRETTAUER said that he had seen nine of the cases of hernia, which had been just referred to by the chairman. In several cases which he had kept under observation the hernia had steadily increased in size. He thought Alexander's operation was a valuable one for a certain class of cases, and if primary union were secured, as it should be, he saw no necessity for the occurrence of hernia. In several of his own cases that he had followed for two or three years no hernia had developed after this operation.

The Chairman said that it would be very interesting to know whether these herniæ followed the method of opening the canal, or that in which the canal was left intact.

Three Warnings of Interest to Obstetricians.—Dr. J. MILTON MABBOTT said that the first point which he would emphasize would be the importance of the obstetrician warning the mother never to neglect a hemorrhage occurring during pregnancy. He had seen two deaths from a neglect of this precaution. An examination of the pregnant woman after the sixth month enabled the obstetrician to exclude placenta prævia. In the next place, the woman should be warned to keep her hands away from the genitals during the puerperium. He recalled a fatal case of pyemia, in which the cause was apparently the patient examining herself as a matter of mere curiosity. In the third place, the physician was urged to warn a nursing woman never to fall asleep with the baby at the breast, for deaths from the mother overlying are almost criminally common. A separate bed had been suggested for the infant with a view to avoiding this danger, but in both of his cases the infant was so provided with a separate bed.

Dr. E. A. TUCKER said that while he was free to admit the importance of these three warnings, he doubted very much whether much good would be accomplished by giving these warnings. He recalled a case in which an intelligent nurse almost lost her life by a neglect to report the occurrence of hemorrhage during pregnancy to her physician. The frequency of sepsis arising from self-examination could not be determined, for it would be rare that the patient would be willing to admit it. He knew of no better safeguard against overlying the infant than having it sleep in a separate bed.

Dr. TULL said that he thought that infection often arose during labor by the patient handling the genitals.

Dr. L. F. BISHOP said that in London the statistics showed that 1000 children lost their lives from overlying alone. It was often due to stupefaction or partial intoxication of the mother. In these cases the face of the infant often presented a natural appearance.

Dr. P. A. HARRIS said that there could be no doubt about the importance of these warnings, which should also be given to midwives. How much good could be accomplished by this was, however, another

matter. At the Pan-American Congress a paper had been read in which was described the practices of the negroes of the South. The point had been made that puerperal sepsis was almost unknown in the South, particularly with those attended by the colored midwives. The same author had stated that it had not been customary for these midwives to make any vaginal examination, as there was a sort of unwritten law among them as to the danger of introducing the fingers into the vagina.

Dr. BROOKS H. WELLS said that the same fact had been noticed by the agency physicians of the West among the Indians, no matter how filthy the hovels in which the squaws were confined.

Dr. MARX said that many physicians were just as culpable as many midwives and patients regarding attention to hemorrhages occurring in pregnancy. It was nothing short of murder to allow a case of placenta prævia to continue even for a day after the diagnosis had been made. He thought some cases of puerperal sepsis occurred among the lower classes from sexual intercourse indulged in shortly after labor.

Dr. VINEBERG said that he had observed a good many slight hemorrhages during pregnancy, in which the origin of the hemorrhage was found to be nothing more than an erosion of the cervix.

The Chairman said that undoubtedly among many women self-examination was a common occurrence. Many ladies among the upper classes of the South prefer to be attended in confinement by the colored women rather than by the physician.

Dr. MABBOTT, in closing, said that although the inherent carelessness of people must be admitted, the physician should give these warnings, and thus see that he at least was not guilty of the same charge.

CORRESPONDENCE

(From the BULLETIN's Special Correspondents)

PHILADELPHIA LETTER

A stated meeting of the County Medical Society was held April 8, with Dr. J. C. WILSON in the chair.

Dr. ARTHUR V. MEIGS read a paper on "Infant-feeding." He had previously read two papers before the society on this subject. In the first he gave the percentage of casein as 0.7, and in the second as 1 per cent. He had always found the percentage of casein the same with very little variation from 1 per cent. in specimens of human milk that he had examined. ROTCH gave the percentage 1.5, and in one case 4.5. This, he thought, was a mistake in analysis. He believed that the keynote in infant-feeding was that in human milk there was 1 per cent. casein and in cows' milk 3 per cent., and in preparing the cows' milk it should be diluted to lessen the amount of casein, and sugar be added to make up the loss by dilution. A quart of good fresh milk should be placed in a cool place to allow the cream to rise, and then a pint of this should be poured off to be used for feeding. Six teaspoonfuls of this, four of lime-water, and six of sugar-of-milk solution, making in all 2 oz., are to be given to the child. A child two days old should receive $\frac{1}{2}$ oz. The lime-water he prefers home-made, taking two teaspoonfuls to a quart of water. The sugar-of-milk solution is made by putting 18 teaspoonfuls to a pint of water, which, if kept in a moderately cool place, will not ferment or be precipitated. He did not believe in changing the proportions as the child

grew older, but fed it on the above mixture until nine months old, only increasing the quantity. He thought 3 to 4 oz. were enough for the first few days, giving $\frac{1}{2}$ oz. six to eight times a day, and increasing until a child at six weeks would get 32 oz. in 24 hours. The amount taken would differ with different children. He did not use any form of sterilization, as he thought it changed the milk and made it less nutritious. He did not use condensed milk or other form of equally bad artificial food. He had used the above method of feeding for 14 years with good results.

Dr. J. P. C. GRIFFITH said the method of Dr. MEIGS had been well recognized and had been widely used, with slight modifications. In infant-feeding he recognized three things: First, quantity, which, when too much, was marked by diarrhea and regurgitation; second, quality, which was the same for children of all ages during the first nine months. He used bicarbonate of soda instead of lime-water, especially where the milk was sterilized, which he did if the milk was not the best. He did not use the prepared foods, as they contained starch. Thirdly, the idiosyncrasy of the child had to be considered, as some children would digest easily what others could not digest at all.

Dr. ALFRED STENGEL read a paper on "Treatment of Pernicious Anemia." He had read a paper on this subject two years ago, and wanted to add his experience during this time. He thought that it was due to blood-destruction, a hemolytic process, and not to lack of blood-formation. He considered it a disorder of the blood, and not a disease. The treatment was, first, by remedies more or less specific, as arsenic, iron, and bone-marrow. Arsenic in Fowler's solution, given in ascending doses, was the best, but would often derange the stomach and intestines; so he had used two to three drops four or five times a day by hypodermic injections. He thought that if cases were treated early there would not be so many relapses. Iron should be given in the stage of convalescence. He had used a glycerin extract of raw bone-marrow, also a mixture of glycerin and bone-marrow, which was the best, but none of the preparations gave him such good results as did the treatment with arsenic.

The second indication for treatment was to improve the circulation by massage and transfusion of blood, or saline solution, which was less dangerous. The third indication was to treat the gastro-intestinal lesions.

Dr. TYSON said he first thought that there was lack of blood-formation, but now that it was due to blood-destruction. He thought long unyielding gastro-intestinal trouble would be followed by pernicious anemia and that chlorosis may also end in anemia. He did not think much of bone-marrow.

Dr. GRIFFITH said that Dr. BURR and he had experimented with dogs and found that frequent bleeding would cause pale bone-marrow. Under the use of arsenic he had seen increase of corpuscles and hemoglobin.

Dr. D. D. STEWART had used bone-marrow in two cases. One died and the other left the hospital much improved.

Dr. J. C. WILSON had used arsenic, massage, and inhalations of oxygen in a very bad case, with good results. He thought a carefully regulated diet, light, systematic massage, and exercise, with injections of normal salt-solution would aid very much in getting good results.

* * *

The State Sanitary Convention will be held at Williamsport, Pa., under the auspices of the State

Board of Health, beginning May 21. The obstruction of waterways will receive much attention.

Dr. MEADE BOLTON, of the Board of Health, Philadelphia, will present a paper on bacteriology.

Dr. C. B. COCHRAN, of West Chester, chemist to the State Board of Health, will read a paper on "Food Adulterations."

Dr. L. F. FLICK, of the Society of Prevention of Tuberculosis, will read a paper on "Control of Tuberculosis," and Dr. LEONARD PEARSON, State Veterinarian, on "The Diseases of Domestic Animals Communicable to Man."

Dr. PEMBERTON DUDLY, of Philadelphia, will discuss the question of "Control of Contagious Diseases of Childhood."

Dr. R. L. PITFIELD, of Philadelphia, will deliver the annual address before the State Board of Health.

* * *

Director H. P. ARMSBY, of the Pennsylvania Experimental Station at State's College, proposes to reduce the sale of impure milk. He finds the Babcock bottles and pipettes sent out by the dairies are inaccurately graduated and he proposes sending from the station to any resident of the State accurate ones. He finds that the thermometers are also very poor and will supply these properly tested and with circulars free of cost with full directions as to how to use them. The amount of milk inspected in Philadelphia for the month of March was 25,595 quarts, of which 356 quarts were condemned as being watered, skimmed, or colored.

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The Trustees of Jefferson Medical College have bought property adjoining the college building on which they intend to erect a hospital, as the present hospital has been greatly crowded for some time. The graduates have subscribed \$5000 to equip the new pathological and bacteriological laboratory.

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The Faculty of the University of Pennsylvania's medical department have decided to return to written examinations instead of the oral, which have been in vogue for some time.

BOOK REVIEWS

A Pictorial Atlas of Skin Diseases and Syphilitic Affections.—In photo-lithochromes from models in the Museum of the Saint Louis Hospital, Paris. With explanatory woodcuts and text. By ERNEST BESNIER, A. FOURNIER, TENNESON, HALLOPEAU, DUCASTEL, HENRI FEULARD, and LEON JACQUET. English edition, edited and annotated by J. J. PRINGLE, M.B., F.R.C.P. London: The Rebman Pub. Company; Phila.: B. Saunders, 1896. Part II.

As in the first number of this publication, four plates are presented in this part. The diseases portrayed are: lupus erythematosus (face), hypertrophic rosacea (nose and middle and lower forehead), a circinate syphiloderm (face), and xanthoma (face and palm). The first plate shows lupus erythematosus upon its most common sites—the nose, cheek, and ear. The various areas showing the several stages of the disease are pointed out by means of an accompanying woodcut of the same case. HALLOPEAU presents this case and the accompanying descriptive notes. As lending support to the alleged tuberculous nature of the disease, the writer adds that this patient had lost a brother and a sister from tuberculous disease, and that the patient himself had, in childhood, suppuration of a cervical gland.

The second plate, presented by BESNIER, is that of hypertrophic rosacea. This is an exceedingly rare case, and is presented for this reason. The hypertrophy is considerable, the skin of the lower and middle forehead forming veritable convoluted masses, bearing a rather close resemblance to the leontiasis of leprosy. The third plate exhibits a circinate papulo-squamous syphiloderm, the eruption being unusually profuse. Woodcuts of two other syphilitic cases—one showing squamous syphilitic patches on the forearm and back of the hand, and the other exhibiting enormous syphilitic patches of a papulo-crusty form on the anterior trunk, are added and lend interest to the text. The last plate of Part II is one portraying xanthoma planum et tuberosum. The disease is shown upon two parts—about the eye and adjacent region and upon the palm. These two parts represent the same patient, who was "glycosuric, icteric, and obese." This case and accompanying notes are presented by M. DARIER. This number of the Atlas keeps up the high standard set by Part I. In fact, the coloring is most admirable and true to nature, and the reviewer takes great pleasure in commending work so well done.

Electro-therapeutical Practice.—A ready-reference guide for physicians in the use of electricity. By CHAS. S. NEISWINGER. Pp. 80. Chicago: E. H. Colegrave & Co., 1895.

The author's preface slights the intelligence of the public by detailing what is not to be found in the book. Its deficiencies are too evident to require explanation. It belongs to the class of medical digests and compends which are overrunning and demoralizing medical literature. The present brochure gives an alphabetical list of diseases, with the methods of treating them by electricity. At the end are illustrations which appear to be reproductions from the catalogue of an electrical-supply store. The electrical treatment of corns receives more attention than that of myelitis. Neuritis is not mentioned. As few will ever see the original, we quote the following medieval gem.

"Insanity: Static head breeze by 'static induced' up and down spine. Séance to last 25 minutes every other day and to be alternated with central galvanization." For the good of medical literature, we would suggest that the author try this remedy on a paranoiac with auditory hallucinations.

The Yearbook of Treatment for 1896.—A critical review for practitioners of medicine and surgery. By 25 contributors. Pp. viii + 476. Philadelphia: Lea Brothers & Company; 1896.

This is the eleventh consecutive issue of this annual summary of medical progress. A chapter on Tropical Diseases, by Dr. PATRICK MANSON, has been added. The price at which this book is attainable brings it within the means of everyone; and although it is concise, the chapters are readable and of great value to the busy practitioner.

Although the work is published by an American house, it is edited in England, and we find that the enthusiastic and advanced views of American writers are quoted and tempered with a few words of English conservatism. It is a good thing for us "to see ourselves as others see us" occasionally, and it is probably a good thing for radical statements to be modified by editorial comment. On the whole, we are pleased with the annual, and we believe it fills a place that the more expensive reviews cannot hope to occupy, and that its value will be fully recognized by the general profession.

EDITOR'S NOTES

State Board Examination.—The Board of Medical Examiners of the State of North Carolina will meet at Winston, N. C., May 11, for the examination of candidates for license to practice medicine within the State. The examination will be written, oral, and clinical.

Ohio's Tobacco Law.—The measure recently introduced into the Ohio Legislature to prohibit the use and to provide a remedy for the sale of tobacco in any form to minors was passed by unanimous vote of that body and is now a law.

Pennsylvania Epileptic Hospital and Colony Farm.—The affairs of the Pennsylvania Colony Farm for Epileptics and the Pennsylvania Epileptic Hospital were consolidated on March 31, and the new corporation will be known as the Pennsylvania Epileptic Hospital and Colony Farm.

Registration in Connecticut.—At a recent meeting of the New London (Conn.) County Medical Society it was voted that at the coming meeting of the Connecticut Medical Society the fellows of the county association advocate legislation requiring the examination of all future candidates for registration without regard to the medical college from which they were graduated.

New Hospital for Pittsburg, Pa.—A new hospital, modeled after the style of St. Luke's, of New York, will shortly be erected in Pittsburg. It will be under the control of the Episcopal Church, and will be known as St. Margaret's Hospital. Funds to the amount of \$800,000 are at the disposal of the trustees for the purpose, only part of which will be used, and the remainder applied as an endowment fund.

Wesleyan Takes Wooster Medical College.—At a joint meeting of the trustees of the Ohio Wesleyan University and the faculty of Wooster Medical College, Ohio, held March 21, it was decided to transfer the latter to the university. A new building for the medical school is in contemplation, and will be ready for use by the class of '98. The college will hereafter be known as the medical department of the Ohio Wesleyan University.

Jaundice from River Water.—At a recent meeting of the Albany County (N. Y.) Medical Society, Dr. C. E. DAVIS read a paper on "Beef and Milk as Vehicles for the Transmission of Contagious Diseases." Dr. J. W. WILTSE read a paper on "Catarrhal Jaundice," in which he dwelled upon the recent epidemic of that disease, the cause of which he attributed to the bad condition of the water supply.

Well-water a Source of Disease.—The annual report of Dr. W. H. MAY, bacteriologist to the city of Syracuse, N. Y., recommends that the use of water from all wells be forbidden. Of 38 sources of water supply, principally wells, 22 were found to contain organisms. The measure proposed by Dr. MAY to prohibit the use of well-water is a step in the right direction and will undoubtedly result in great good if adopted. We heartily indorse Dr. MAY's recommendation.

Execution by Electricity for Ohio.—Senator JONES, of the State Legislature of Ohio, has introduced a bill providing for the abolition of hanging as a means of inflicting the death penalty, and substituting execution by electricity, as in New York State.

Posthumous Slander Suit.—Another suit has been brought against a medical man in Brooklyn, this time by the mother of a deceased patient. The doctor's diagnosis, which an autopsy proved erroneous, reflected, it is claimed, upon the chastity of the patient and caused gossip among neighbors. Suit for \$10,000 is brought to vindicate the daughter's good name and remove the stigma cast upon the family.

Erie Railroad's Hospital Scheme.—The Erie Railroad is about to establish an extensive hospital system for sick and disabled employees, which is to be sustained by assessment on the pay of employees proportionate with the pay they receive for services. The railroad will contribute \$10,000 as a nucleus for the furtherance of the project, which will also serve as a life home for employees permanently disabled.

St. Louis on the Expectorations Problem.—The Health Board of St. Louis, Mo., has under consideration the framing of an ordinance to make it a misdemeanor for any person to expectorate on the floors of street-cars or other public conveyances, or in hotel corridors, theaters, public halls, and places of worship; also that the porters or persons in charge of cars and public places be required to furnish cuspidors in sufficient number, and that they be required to clean the vessels daily, using some disinfecting fluid approved by the Board of Health.

Niagara Falls is after Expectorators.—A very desirable ordinance is about to be put into operation by the Board of Health of Niagara Falls, N. Y., which will, it is hoped, remedy the evils growing out of the practice of expectoration in street-cars, railways, etc. It is as follows: "No person shall hereafter expectorate upon the floor, sides, or upon any part of any street-car, steam-car, or upon the floor, walk, or any part of any public building within the city of Niagara Falls."

"Willful violation of this ordinance constitutes a misdemeanor, and every person so violating shall forfeit and pay a penalty of \$5 for each and every offense."

Trouble at the Deborah Nursery.—The Ladies' Deborah Nursery, New York, was established 20 years ago under the patronage of several ladies, for the maintenance of small children, and has grown in dimensions, until it is now recognized by the city, and receives an appropriation of \$40,000 per annum for the care of its charges. It is claimed that an irregularity exists in the matter of expenditure of moneys thus appropriated, and the Board of Charities has been asked to investigate the matter, for which a committee has been appointed. This action may entail a very interesting legal fight if an adverse report is submitted by that body, as the management of the Nursery claims the charges against it to be the fabrication of certain persons who are jealous of its success.

Erie County Hospital Investigation.—The animus of opposition to separation of the Erie County Hospital at Buffalo from the Almshouse is being probed for deeper reasons than those advanced by the opponents of the bill.

Johnstown Memorial Hospital.—The position of director of the Memorial Hospital at Johnstown, Pa., having been abolished by the Board of Managers, the duties of that office will fall to the lot of Superintendent JOHN L. DEENS, who is now head of the institution. Mr. DEENS was formerly an *attaché* of the Allegheny General Hospital and is a hard and earnest worker.

St. Peter's Hospital, Brooklyn.—The twenty-ninth annual report of the St. Peter's Hospital, Brooklyn, which is under the charge of Sisters of the Poor of St. Francis, has just been issued. St. Peter's is a free institution supported by voluntary contributions. The number of patients treated within its walls during the past year was 2409, of which number 1492 were males and 917 were females. There were 36,072 patients treated by the hospital since its establishment, in 1866, and 4000 deaths. The building accommodates 300 patients.

Paris Honors Her Medical Heroes.—A hall of honor has been established in the Val de Grace Hospital in Paris, where the names of French medical men who died in the performance of their duty are inscribed on tablets of marble. A list of 143 doctors and 45 apothecaries has just been placed on its walls, all of whom perished in the yellow-fever epidemic at San Domingo and Guadaloupe in 1801-1803.

Insignia for State Medical Officers.—The present insignia of the medical officers of the State of New York, a shield of embroidered gold, is soon to be replaced by a more appropriate badge. The Geneva cross, which is known by every medical department of the civilized world, and, by the law of nations, is a passport in the field, would seem to be the most suitable designation, and no doubt will receive recognition by its selection as the emblem to take the place of the meaningless and inappropriate shield now in use.

Measles in the White House.—President CLEVELAND's second daughter, ESTHER, aged 2½ years, is suffering from the measles. Every effort had been made to protect the children of the White House from the epidemic that has prevailed in Washington for a month or more, even to the exclusion from the executive mansion of members of the Cabinet in whose families the disease existed, but even these precautions were to no purpose. The little patient has been removed to the President's summer home at Woodley, where she will be isolated from her sisters, and an effort will be made to protect them from infection.

Is This Criticism Warranted?—In a recent issue of one of our current medical journals we noted a criticism of certain Western medical periodicals, the names of which were not mentioned, charging them with quoting, from its advertising pages, matter which was apparently taken for original contribution, but which in reality was advertising matter. Perhaps our esteemed Western brethren will be good enough to explain or defend themselves. They might have known better, but still we are inclined

to make a counter-charge when we remember that the enlightened Eastern production that makes the charge is losing sight of the fact that its own language in black and white is virtually an assertion that all its pages are what any honest-minded man would expect with a claim of "76 pages"—instead of 36 pages of legitimate reading-matter, and the remainder a mass of advertising. The deception is quite apparent, and were we to judge between them for the greater fault, we would unhesitatingly say "Honesty is the best policy."

An honest mistake needs no apology. Perhaps if our Eastern friends will confine themselves to facts and cease their effort to hoodwink an intelligent profession, our Western contemporaries will not be far behind.

Railway Surgeons to Meet.—The following preliminary program of the National Association of Railway Surgeons, to be held in St. Louis, Mo., April, 29, 30, and May 1, 1896, is announced:

PAPERS

"Shock," by Dr. W. B. Rogers, Memphis, Tenn.—"Restoration of Nerves after Injury, Experimental Research and Clinical Observations," by Dr. A. H. Levings, Milwaukee, Wis.—"Shoulder-joint Injuries; their Causation and Morbid Anatomy," by Dr. T. H. Manley, New York.—"Railway Transportation of the Dead," by Dr. J. D. Griffith, Kansas City, Mo.—Paper (title not given) by Dr. A. L. Wright, Carroll, Ia.—"A Study of Synthetic Metabolism, in the Healing of Granulating Wounds," by Dr. W. B. Outten, St. Louis.—"Traumatism of Abdominal Viscera," by Dr. J. G. Northrup, Marquette, Minn.—"Secondary Amputations," by Dr. Alex. Hugh Ferguson, Chicago.—"Color-blindness," by Dr. D. Emmett Welsh, Grand Rapids, Minn.—"Rupture of Bladder with no Evidence of External Injury," by Dr. S. R. Wooster, Grand Rapids, Mich.—"When to Amputate: Brief Rules formulated," by Dr. S. Birdsall, Susquehanna, Pa.—"Traumatic Neurosis Resulting from Railway and Other Accidents," by Dr. John Punton, Kansas City, Mo.—"Why Railroad Surgeons Should Not Try to Practice Aseptic Surgery," by Dr. Emory Lamphear, St. Louis, Mo.—"Railway Employees Hospital Association," by Dr. Geo. Chaffee, Brooklyn, N. Y.—"One Fallacy regarding Ununited Fractures, with Report of Cases," by Dr. E. R. Lewis, Kansas City, Mo.—"The Care and Management of Railway Injuries from First Dressing or Operating till Discharge by Surgeon," with illustrated cases, by Dr. N. A. Drake, Kansas City, Mo.—"Surgical Treatment of Injuries of Spinal Cord and Column," by Dr. T. H. Briggs, Battle Creek, Mich.—"Should We Have Pus in Railway Surgery?" by Dr. Lester Keller, Irontown, O.—"Stereopticon Views of Deformities following Fractures," by Dr. Geo. W. Crilley, Cleveland, O.—"Atony from Traumatism," by Dr. J. N. Dixon, Springfield, Ill.—"What Stimulants; How and When to Use Them in Cases of Accident," by Dr. E. O'Neil Kane, Kane, Pa.—"Inflammation of Bones," by Dr. A. J. Fulton, Kansas City, Mo.—"Hot-water Irrigations of the Eye in the Treatment of Gonorrheal Ophthalmia," by Dr. LeRay Dibble, Kansas City, Mo.—"Tumors of the Lachrymal Glands," by Dr. A. Alt, St. Louis, Mo.—"Deflected Septum and its Surgical Treatment," by Dr. J. A. James, B.S., St. Louis, Mo.—"Conservative Treatment of Injuries to Large Vessels, with Reports of Experiments and Clinical Observations," by Dr. J. B. Murphy, Chicago.

The meeting promises to be very large. J. B. MURPHY, M.D., Chicago, Ill., is president of the Association.

Texas Medical Association.—The following preliminary program of the twenty-eighth annual meeting of the Texas State Medical Association, to be held at Fort Worth, Tex., April 28, 29, 30, 31, and May 1, 1896, is announced:

PAPERS

GENERAL MEDICINE

"Newer Methods of Treatment of Nervous and Mental Diseases." Frederick Peterson, New York.—"Some Settled Questions in Regard to Diphtheria." H. A. West, Galveston.—"Diphtheritis and Membranous Croup, with Practical Demonstrations." S. T. Turner, El Paso.—"Diphtheria and Associated Diseases." E. W. Capps, Fort Worth.—

"Diphtheria." I. G. Greenwell, Cleburne.—"Diphtheria and Pseudodiphtheria: Their Differential Diagnosis by the Practitioner." C. O. Mathews, Terrell.—"Influence of Climatic Conditions and Weather Changes on the Functions of the Skin." Isaac M. Cline, Galveston.—"A Note on the Actions of Apolysin." David Cerna, Galveston.—"Typhoid Fever." W. B. McKnight, Mansfield.—"The Treatment of Appendicitis Considered from a General Standpoint." A. H. Schenk, Kenney.—"Hematemeses, with Report of Case." W. R. Blalock, McGregor.—"On the Treatment of Pneumonia." R. S. Gilbert, Oak Cliff; Dr. Stout, of Dallas, to open the discussion.—"The Prevailing Diseases of East Texas, and the Changes Thereof, as Observed During the Past Thirty Years." H. L. Tate, Lindale.—"The Actions and Results of Serum in the Treatment of Tuberculosis." Paul Paquin, St. Louis, Mo.

OBSTETRICS AND DISEASES OF CHILDREN

"External vs. Internal Examination in Obstetrics." W. M. Powell, Albany.—"Puerperal Septicemia." B. H. Vaughan, Hillsboro.—"Puerperal Peritonitis." R. B. McKinney, Memphis, Tenn.—"Report of a Case of Cesarean Section." J. E. Gilcreest, Gainesville.—"An Encephalocoele." A. P. Brown, Fort Worth; discussion opened by R. M. Swearingen, of Austin.—"Several Cases of Puerperal Septicemia Caused from a Case of Facial Erysipelas." W. M. Yater, Grandview; discussion opened by A. M. Douglass.—"Scarlatina." G. C. Head, Grandview.

SURGERY

"Some Remarks on the Surgery of the Kidney." J. E. Thompson, Galveston.—"Some of the Latest Methods of Treating Tubercular Joints and Correcting Deformities Resulting from Infantile Paralysis." M. M. Edmondson, Dallas; discussion opened by J. H. Smart, Dallas.—"Tuberculosis of Bone, Especially that of Knee-joint." W. P. Alexander, Cleburne; discussion opened by W. T. Baird, Dallas.—"Some Cases of Osteomyelitis." W. R. Blalock, McGregor.—"Importance of Rest and Extension in Traumatism of the Cervical Vertebrae." Geo. H. Lee, Galveston.—"Treatment of Compound Depressed Fracture of the Skull." A. C. Scott, Temple; discussion opened by C. A. Smith, Tyler.—"Early Extirpation of an Intramammary Adenosarcoma." F. E. Haynes, Abilene; discussion opened by R. R. Walker, Paris.—"Carbuncle with Grave Complications." O. L. Williams, Dallas; discussion opened by D. Dupree, Dallas.—"Report of a Cure of Encephaloid Cancer of the Kidney." W. J. Lane, Dallas; discussion opened by W. A. Durringer, Fort Worth.—"Asepsis in Surgery." Z. T. Bundy, Milford; discussion opened by T. F. Oates, Mexia.—"Habitual Constipation a Surgical Disease." W. T. Baird, Dallas; discussion opened by Sam. R. Burroughs, Raymond.—"The Modern Method of Treating Sprained Ankle." J. E. Gilcreest, Gainesville; discussion opened by A. P. Brown, Fort Worth.—"The Surgical Anatomy of the Vermiform Appendix and Cecum." W. Keiller, Galveston.—"Chloroform Anesthesia." H. P. Cooke, Galveston.—"Chronic Posterior Urethritis." J. J. Bush, Pecos; discussion opened by W. A. Adams, Fort Worth.—"Two Cases of Cholecystotomy." A. W. Fly, Galveston.

MEDICAL JURISPRUDENCE, ETC.

"A Plea for Reform in Criminal Jurisprudence." F. E. Daniel, Austin.

GYNECOLOGY

"Immediate Repair of Lacerations of the Perineum." J. M. Richmond, Edna.—"Tubal Pregnancy and Its Termination." Joseph Price, Philadelphia.—"Urethral Caruncle." B. F. Brittain, Arlington.—"Some Mistakes of Surgical Gynecology." Thos. A. Stoddard, Pueblo, Col.—Subject not announced. J. T. Jelks, Hot Springs, Ark.

STATE MEDICINE AND PUBLIC HYGIENE

"How to Dispose of Liquid Waste in Towns Which Have Waterworks but No Sewers." Wm. M. Yandell, El Paso.—"State Care of Insane, Epileptics, Inebriates, and Habitues of Narcotics." F. S. White, Terrell.—"Medical Education: Its Defects and Perversions." Joseph A. Mullen, Houston.

OPHTHALMOLOGY, OTOTOLOGY, ETC.

"Methods of Treatment of Secondary Cataract." Henry Power, London, England.—"The Eye in Its Relation to Health." H. L. Hilgartner, Austin.—"The Relation of Ophthalmology to General Medicine." Harry Friedenwald, Baltimore, Md.—"Eye Surgery by the General Practitioner." E. J. Neathery, Van Alstyne.—"Eye Troubles Commonly Arising in General Practice." G. W. Grove, Kansas City, Mo.—"Report of Cases." Robert E. Moss, San Antonio.—"The Nature of Glaucoma and the Method of Treating the Disease by Sclerotomy." X. Galezowski, Paris, France.—"Ocular Effects of la Grippe with Report of a Case." R. F. Miller, Sherman.—"Detection and Cor-

rection of the Errors of the Ocular Muscles." Vard H. Hulen, Galveston.—"The Relation Existing Between the Diseases of the Eye and Brain." Robert F. LeMond, Denver, Col.—"Epilepsy as a Result of Nasal Obstruction." Frank C. Todd, Fort Worth.—"Cataract: Diagnosis and Treatment." R. H. Chilton, Dallas.—"Functional Impairment of the Auditory Center as Result of Catarrhal Deafness." Joseph A. Mullen, Houston.—"The Cure of Deviations of the Nasal Septum." Vard H. Hulen, Galveston.—"Some Notes on Laryngology." Frank D. Boyd, San Antonio.

DERMATOLOGY, ETC.

Title to be announced. Geo. Henry Fox, New York.—Title to be announced. A. Van Harlingen, Philadelphia.—"Erythema Multiforme Following Circumcision." R. W. Knox, Houston.—"A Peculiar Rash Accompanying Malarial Fever." Allen J. Smith and Wm. Gammon, Galveston.

MICROSCOPY AND PATHOLOGY

"Pathology and Diagnosis of Pleural Effusions." W. F. Starley, Jr., Galveston.—"The Coronary Circulation." Allen J. Smith, Galveston.

The above list of papers is of sufficient scope to guarantee an interesting and instructive session. The committee appointed at the last meeting to formulate a bill to regulate the practice of medicine in Texas met in Dallas, March 28. The report is ready, and its consideration will constitute one of the most important subjects ever brought before the Association. The attendance of all regular and reputable physicians in the State is urgently solicited.

Antiphthisin Experiments.—In November, 1895, the Parish Medical Society, of New Orleans, La., appointed a commission for the investigation and a public test of antiphthisin, as to its value in tuberculosis, to be made in the Charity Hospital, of New Orleans. The commission consisted of the following members: Dr. EDMOND SOUCHON, president; Dr. A. J. BLOCH, secretary; Dr. J. D. BLOOM, house physician of Charity Hospital; Prof. JOHN B. ELLIOTT, Prof. R. MATAS, Prof. F. W. PARHAM, Dr. F. LOEBER, Dr. CHAS. CHASSAIGNAC, Dr. JOHN H. BEMIS, Dr. JOSEPH HOLT, Dr. H. L. LEWIS, Dr. P. E. ARCHINARD, Dr. O. L. POTHIER, Dr. A. MCSHANE, Dr. C. J. LANDFRIED.

The treatment of cases began November 27, and the final report was presented to the Parish Medical Society at its regular meeting, March 28, 1896.

The following are the conclusions arrived at:

CONCLUSIONS IN SURGICAL CASES.—"A consideration of the three improved cases would certainly lead us to believe that antiphthisin has decided value, and we should commend its careful, tentative employment in such cases in conjunction with general measures and the usual appropriate surgical operative treatment. The glandular case we consider especially encouraging. This case would seem to have required a most serious operation for the removal of the glands, with great uncertainty of ultimate benefit. The improvement under antiphthisin treatment would alone justify us in ascertaining that we have in this remedy a most valuable aid in the management of such cases. We beg to call attention in this connection to the case of Dr. AMBLER, of Ohio, reported recently in the *Medical Record*, as confirmatory evidence of the value of antiphthisin in glandular tuberculosis. The hypodermatic employment of the remedy would seem to be especially advantageous, if administered under careful aseptic precautions."

CONCLUSIONS IN MEDICAL CASES.—(1) In nearly every case the area of lung involved decreased, if it did not clear up entirely. (2) Auscultation bore out the results of percussion, vesicular respiration replacing, to a greater or less degree, morbid breath-sounds, in those cases which were classed as cured,

the departure from health being only such as is due to the results of every continued pneumonic process. (3) Secretion was diminished even in the cases marked only improved, and entirely absent in others. (4) Bacteriological reports in most of the cases bore out the results obtained in physical and other examinations. (5) The general condition of the patients improved in the large majority of cases, even in those whose physical examination did not show any great improvement. (6) The use of the remedy was not attended with any danger to the patient. (7) Finally, antiphthisin does seem to have *curative*, and not simply palliative, qualities.

Unprofessional Meddling.—*To the Editor of the A. M.-S. BULLETIN:* I wish to spread the following facts upon the pages of your esteemed journal. Further I shall say nothing, as comments on my part are unnecessary.

A young patient of mine is attacked with scarlet fever and at once isolated, and the Board of Health notified. In due time an inspector appears. The patient has a smooth convalescence, hardly requiring any medical advice, but, for safety, is seen by the writer every five days. At the end of the fourth week the aforesaid inspector(?) again appears, and *in my absence* examines the child. He does this a half a dozen times, knowing full well at the time that a doctor is in attendance.

At the end of the seventh week (I had not called on the patient for one week), on making a call I found the child discharged as cured by this same "embryonic hiring." He had again deliberately stripped and examined the child, and, in my absence and without my consent, had declared the child well and free from contagion. I had nothing to do or to say except "under my breath," and leave. Is this justice at the hands of "Our Board of Health"? Supposing this child had had a chronic nephritis—well, I said I would not comment, and shall stop. I beg of the BULLETIN for suggestions and advice.

AN ADMIRER.

[The BULLETIN advises its esteemed correspondent to report the facts, with the name of the medical employee of the Health Department, to the Chief Inspector of Contagious Diseases. Our impression is that there will result a curtain lecture, which will prevent the same employee from acting after such an unprofessional fashion in the future, on pain of dismissal from the service.—Ed.]

Callisection vs. Vivisection.—The BULLETIN publishes the following from Prof. B. G. WILDER, of Cornell University, as additional proof of the fact that anti-vivisectionists, as they term themselves, are grossly in error in their calumny of scientists:

VIVISECTION AT CORNELL. IT IS ALL CALLISECTION, OR PAINLESS EXPERIMENTATION

In view of recent sensational, inaccurate, and contradictory reports, our readers may prefer to learn the facts through the following extracts from the introductory lecture of the course in physiology:

"Although our subject is the physiology of *man*, yet—because most of the organs are out of sight and experimentation upon human beings is limited—the bulk of accurate physiological knowledge has been gained from *animals* and must be illustrated thereon.

"All the experiments in this course are (and always have been) performed upon animals just

killed or completely anesthetized; the utmost pain inflicted is in killing a frog by 'pithing' with a sharp knife, and this is approved as a humane method of slaughtering animals for food.

"From the use of a single word, *vivisection*, for two widely different things, painful and painless experimentation, have resulted much confusion, injustice, and distress of mind. The writer's proposition that the two kinds of vivisection should be verbally distinguished as *sentisection* and *callisection* (the latter from the Latin *callus*, insensitive, and not from the Greek *kalos*, beautiful, as given in the Century Dictionary) was published in the *New York Medical Record*, August 21, 1880, in *Nature* (at the request of the late CHARLES DARWIN) for September 30, and in *Science* for October 23.

"Without prejudice to the claim of some that *sentisection* is demanded for the *advancement* of knowledge by *experts*, the writer holds that it is not warranted for the dissemination of knowledge. His views are somewhat fully presented in *The Popular Science Monthly* for June, 1883, in an article entitled "Vivisection in the State of New York." See also "Every-day Cruelty," by Dr. ROBINSON, *Fortnightly Review*, July, 1894, and the Address by Dr. A. L. LOOMIS, as president of the Congress of American Physicians and Surgeons, 1894, Transactions, pp. 299-314, and the current medical journals.

"The writer regards it as unfortunate that justification of experimentation upon animals should be so generally restricted to the improvement of medical science; on the contrary, *callisection* is essential to the teaching of physiology, and should be practiced in all grades of schools.

"So far from brutalizing, the writer believes from reason and experience that the careful and humane methods of *callisection* encourage humanity in the beholders. The Anatomical Department of Cornell University has been from the first an efficient agency for the prevention of cruelty to animals in this part of the State."

Eureka! A Cancer Cure!—The following is a copy of a circular-letter sent to physicians in this city, under date of March 7:

DEAR DOCTOR: Permit me to hereby bring to your attention a treatment for skin, cancer, and tuberculous diseases which has been followed by most gratifying results. I shall be pleased to demonstrate to you the efficient method of this treatment in any case you may have if you will kindly advise me by letter, or will call at my office from 9 a.m. to 12 m.

Awaiting your pleasure, I am,

Yours very sincerely,

The circular is signed by a name which does not appear in the list of physicians registered in the County Clerk's Office, as published in the latest Medical Directory. Whether the advertiser be "in good and regular standing," or whether he be a physician, we know not, although he appends "M.D." to his name. But there can be but one opinion held by educated physicians regarding any single "treatment for skin, cancer, and tuberculous diseases," as well as regarding any secret method of treatment which, of course, involves the use of unknown drugs or agencies.

It is a blot upon the fair name of the noblest profession that there are within its ranks practitioners who use and indorse proprietary articles of which they do not know the contents, and which are brought to their notice by advertisements fairly redolent of quackery. In the huge grist of graduates ground out by certain medical schools, there are unfortunately many who practice by the book and the

bottle, and whose science is limited to symptomatology and guesswork. Such practitioners will be attracted by the letter of the cancer curer, and will aid in transferring to his bank account the money now in the pockets of desperate sufferers, who will grasp at any chance of baffling disease and delaying the approach of death. Probably there will be "gratifying results" to the circular-letter writer. It is hoped that few, if any, New York physicians will be impelled "to hereby bring" their patients under the influence of this skin-cancer-tubercle treatment, or will waste three precious morning hours by calling at the office of the advertiser "from 9 a.m. to 12 m."

Navy Items.—Passed Assistant Surgeon L. L. Young was detached from the Naval Hospital, Norfolk, and ordered to the *Albatross*.

Assistant Surgeon J. M. Moore was detached from the *Vermont*, and ordered to the Naval Hospital, Norfolk.

Passed Assistant Surgeon E. S. Bogert was detached from the *Albatross*, ordered home, and granted three months' leave.

Personal.—Dr. GEORGE E. M. HERBST, of Olney, Pa., who is a candidate for Congressional nomination, was graduated from Jefferson Medical College, Philadelphia.

Dr. R. H. HAVILAND has been appointed health officer at Volney, N. Y.

Dr. F. W. CLARK has been appointed health officer of Williamson, N. Y.

Dr. JOHN AHL was recently appointed to the position of almshouse physician at York, Pa.

Dr. F. E. MARTINDALE, of Port Richmond, N. Y., has been appointed health officer to that place.

Dr. CARLOS F. MACDONALD, of New York, will testify as an expert in epilepsy at the trial of the Rome (N. Y.) boy train-wreckers, which will take place April 20.

At a recent meeting of the Board of Trustees of Jefferson Medical College, Philadelphia, Dr. ALBERT P. BRUBAKER, who was graduated from that institution with the class of '74, was appointed adjunct professor of hygiene.

Dr. W. O. OSBORNE, of the Cleveland Medical College, and Drs. W. G. MORSE and C. H. TANNER, of the Western Reserve Medical College, have been appointed to positions on the house staff of the Cleveland City Hospital.

Obituary.—Dr. LESLIE A. PHILLIPS, a prominent physician of Brookline, Mass., died April 3. He was graduated from the Boston University Medical School with the class of '77, and at one time was president of the Massachusetts Surgical and Gynecological Society.

Dr. F. E. CHUTTENDEN, of Des Moines, Ia., died in that city March 30.

Dr. WILMOT C. TERRY, of Ridgebury, N. Y., died at his home in that place April 6, aged 74 years.

Dr. S. R. BLIZZARD died in Kansas City, Mo., March 27. He was graduated from the Medical College of Ohio at Cincinnati—now Medical Department of the University of Cincinnati—in 1860.

Dr. ROWAN CLARK, of Belwood, Pa., died in that place April 3. He was one of the most prominent physicians of Blair County, and was 68 years of age

at his death. He was graduated from Jefferson Medical College in the fifties.

Dr. JOSEPH A. MURPHY, one of the best known physicians in Wilkes Barre, Pa., died in that place April 4. He was graduated from the University of Pennsylvania in 1868; and was a member of the County and State medical societies at the time of his death.

PUBLISHERS' DEPARTMENT

SOME OF THE NEWER METHODS FOR THE STERILIZATION OF CATGUT

The aseptic intent of the surgeon is far too frequently nullified through the use of a ligature material which he had every reason to suppose was absolutely sterile, and yet, after a number of days, is found to be at the bottom of infection of the wound or the field of operation. For this reason many surgeons are afraid to use catgut, and yet of all suture material this is the superior for ligating vessels or for burying. It has been the experience of the average surgeon that catgut prepared after many of the suggested methods may prove reliable; and again, from the same sample, there may follow suppuration. Often, of course, this result may not be fairly chargeable to the catgut, except that it has been infected through some fault in the technique at the time of operating. As a rule, however, infection follows so frequently and so unexpectedly the use of catgut that it is used with great circumspection and frequently rejected when it would answer the best of all material.

Recently a number of gentlemen have interested themselves in placing on the market catgut which, after thorough cleansing of fat, is boiled under pressure in absolute alcohol and inclosed in sealed glass tubes. This catgut is, in every instance, inspected from a bacteriological standpoint, and the reports which reach us justify the verdict that if care be taken not to infect the catgut during the operation it is reliable. Messrs. Peake & Buzzell, of Boston, prepare a catgut which is inspected bacteriologically, and is considered reliable. The tubes in which the catgut is placed are further furnished with a needle so that, for emergency purposes, the size of the tubes being such that they may be carried in the vest pocket, the surgeon and the general practitioner are supplied not alone with suture material, but also with the needle. Before opening the tube it is placed in bichloride solution, and then, if the surgeon's hands are aseptic, there should not follow suppuration. A further reliable method of preparing catgut is that which consists in placing it in a solution of formalin. HUNTER ROBB, of Cleveland, indorses this method. The catgut is wrapped in blotting-paper and placed in a 2-per-cent. solution of formalin for 24 hours. It is then washed in sterile Tavel's solution, to free from excess of formalin—otherwise it would become brittle—and is kept in this solution until use. The formula of Tavel's solution is: Sodii chlorat., 7.5; sodii carbonat., 2.5; aq. pestillat., ad 1000. HUNTER ROBB prefers to remove the excess of formalin by blotting-paper (sterile, of course), and then to place the catgut in a drying-oven at a temperature of 60° until all the moisture has been given off, and then to put it in sterilized bouillon until it is required for use. This being done, any defect in the technique of sterilization could at once be detected at the time of operation.

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PULMONARY INSPECTION OF CERTAIN EMPLOYEES

IN February, 1894, the Health Department of New York city issued to physicians a circular ordering a report to the bureau of each case of tuberculosis. At the same time it distributed a circular to consumptives and those living with them stating that consumption was a communicable disease, and ordering certain precautions to be taken regarding destruction of sputa. Public opinion was hardly prepared for these measures, although physicians had long been in possession of the knowledge of the contagiousness of tuberculosis. Yet, in two years, public opinion has been markedly educated, and the view of the average citizen has been encouragingly broadened with regard to the matter.

Such a department as the Board of Health must always move cautiously. It must avoid arousing antagonism and stimulating secret disobedience, and yet strive to be abreast of the best modern thought. It must tactfully secure the co-operation of citizens rather than sternly enforce distasteful measures. Laws that do not meet with public approval or that are not enacted to meet a public demand, can rarely be enforced satisfactorily. This is especially true of preventive measures. The majority of people argue only from results; they do not learn by the experience of others; they interpret altogether too literally the precept: "Take therefore no thought for the morrow." Hence, if we are to secure beneficial results from any given legislation, we must awaken a widespread desire for enforcement of the law in question. This statement is as true regarding legislation for the safety of the body physical as for the safety of the body politic. The recent alteration in the attitude of friends of tubercular patients gives evidence of the success of the Board and of

physicians in molding public opinion, and in creating a desire to ascertain and to obey the regulations of the Department.

A few ladies of our city, with rare courage, persistently agitated the nauseous subject of promiscuous expectoration, and, after many months of missionary work, have cultivated a sentiment against the disgusting habit. Following these pioneers as closely as was expedient, Dr. HERMANN M. BIGGS and Dr. T. M. PRUDDEN submitted to the Sanitary Bureau feasible suggestions for preventing promiscuous expectoration. The first step proposed is to prohibit expectoration (except in proper receptacles) in conveyances and in public places in the city. When these suggestions shall have been adopted and used as a basis for municipal regulations, a new and valuable point of vantage against disease will be occupied by sanitation.

When the prevention of promiscuous expectoration is an accomplished fact, we propose that the Health Department of the city occupy still more ground. There should be established a system of periodical examination by a corps of sanitary inspectors, of (1) all artisans who manufacture articles that may become infected with the germs of epidemic influenza or of tuberculosis; (2) all packers and boxers of articles inclosed in containers or enveloped in packing which might carry the germs of either of these two diseases to purchasers; and (3) all individuals in families whose members sew at home on clothing which is exposed for sale just as it comes from their hands.

The profession seems oblivious of the fact that a packing clerk may send tubercle bacilli directly to our children, in the cotton in which toys are wrapped, or may introduce into our kitchens and storerooms

the same deadly germs, in the excelsior, cut paper, or straw used as packing. Beyond a doubt, in this way many sporadic cases have received their infection. In the winter of 1894-5 a packer in a very large retail house in this city died, while at work, of pulmonary hemorrhage. Who can tell how often flecks of sputa, during many months of coughing, had been scattered in the material in which he worked, to be inhaled by the recipients of the articles packed by him? The public has as distinct a right to be protected against this source of disease as against a polluted water supply. There can be neither difference of opinion concerning the matter nor doubt as to the proper course to pursue.

Many physicians do not know that certain articles of apparel are put in stock in the shops in the condition in which they come from the hands of those who manufacture them. For example, women's underwear and women's nightgowns are placed on sale, unlaundered, just as they are received from the seamstresses who make the articles. Any infectious germs which have invaded the homes of these poor workers gain easy access to the garments and find lodgment in their folds. Nothing prevents transmission of infectious disease which may exist in the worker or in some member of her family, in whose bedroom the garments are kept and the sewing is done. The infected clothing is shaken out in the shops, unloading the germs upon the atmosphere breathed by saleswomen and customers, and is finally placed in the bureaus and wardrobes of the purchasers, to be worn by possible victims.

In view of these facts it is suggested that (1) on a future date a corps of sanitary inspectors be detailed to tabulate all the artisans, packers, and other employees to whom reference has been made, and to record their pulmonary condition; (2) a physical examination of the lungs of these workers be made once every six months thereafter; (3) no applicant for a position among the inspected class shall be employed unless he produces a certificate of satisfactory pulmonary condition, such certificate to be obtained from a sanitary inspector; (4) any employee exhibiting at any time symptoms of pulmonary disease shall be re-examined at once; (5) all cases of epidemic influenza, or of tuberculosis or other germ disease among these workers shall be isolated and treated as necessary.

The objection may be made that legislation providing for forced inspection and subsequent surveillance of this class of workers would be unusual and harsh, or would constitute a hardship to which the people would not readily submit. In reply it may

be said that such legislation would not be without a parallel in certain respects. For it is a leading provision of the Mercantile Inspection Bill (Assembly Bill No. 285), which became a law early in April, 1896, that every child employee under sixteen years of age shall be registered in the stores, and shall have a certificate of age and physical fitness from the Board of Health, as well as an affidavit from its parents, showing that it has regularly attended school. Following in the wake of this law, inspection and tabulation would not be difficult. In rare instances are the present regulations of the Health Board deemed harsh or burdensome. "The greatest good to the greatest number" is a doctrine which finds ready acceptance.

Next to the duty of protecting the public against infection lies the duty of caring for the patient. Great suffering would be inflicted upon him, and upon those dependent upon him, were he simply discharged from his position and quarantined at home. There is a moral obligation that he shall receive further consideration and care. Contemplation, by humane people of wealth, of the sad necessity of forcing an able-bodied tuberculous patient to abandon his only means of livelihood, for the sake of the general welfare, will certainly result in the foundation of sanitariums for such unfortunates in salubrious regions. Here is a suggestion for the beneficent wealthy, who wish to do good to their fellow-men, and who contemplate endowing clinics or dispensaries or general hospitals. We need no more such institutions in New York city. As true now as when he uttered them in April, 1891, are the words of the late Prof. ALFRED L. LOOMIS to certain wealthy people:

"New York city, as I have said before, has more hospitals and dispensaries than the needs of the sick and suffering poor demand. If you want an example of it, supposing the half-million which has been spent in erecting a cancer hospital that has no patients and no endowment, when another cancer hospital exists in the city that is capable of doing all the work—suppose that half-million dollars had been turned into the treasury of the ———; what good would have been done with it! You go through the hospitals, and you will find that one-half to one-third of the patients are pay patients, able to be taken care of. Some years ago I was called upon to make an address at the Woman's Hospital, and I offended the ladies very much. I said I had gone through the hospital, and of the 125 patients there were only 14 charity patients."

Such noble charities as we here advocate do not

come under Dr. LOOMIS's very just criticism; there is an urgent need of these, and we commend them to the consideration of the wealthy.

The influence of institutes for consumptives on the health of the neighborhood has not been shown to be bad. The objections of the timid to the assembling of such patients in any locality have yet to be substantiated by facts. In the *Münchener medicinische Wochenschrift*, 1895, No. 40, and also in the *Centralblatt für innere Medizin*, February 1, 1896, the statement is made by Dr. NAHM that during a period of twenty years preceding the establishment of the Falkenstein sanitarium for pulmonary tuberculosis an average of 4 per cent. of the inhabitants died annually of phthisis, and 18.9 per cent. of the total mortality was attributed to that disease; but that after the institution was opened the average mortality from phthisis, during the period from 1877 to 1894, fell to 2.4 per cent., while the proportion of deaths from consumption to deaths from all causes sank to 11.9 per cent.

One sanitarium for the exclusive treatment of the tubercular has been established in a most appropriate locality, and will soon be ready for the reception of patients. We need many refuges in localities affording proper climatic conditions, to which the tuberculous patient, debarred from pursuing his occupation, may resort for gratuitous treatment till able to do such work as the region may afford, those dependent upon him being aided meanwhile as may be necessary.

Who will give the means for building such refuges and when can the systematic examinations of employees begin?

Food Adulteration.—A recent examination made in London, of a quantity of samples of food products, showed the entire quantity made in the United States and Canada to be free from adulteration, while Germany headed the list with 37 adulterated samples out of 124 examined.

Good for America if the statistics are reliable. But then, there is filled cheese, and—

"The All-round Doctor" was the subject of Prof. HOWARD BRYANT's discourse before the graduating class of the Medical School of the Baltimore University on April 15. Prof. BRYANT is a member of the bar, and one of the faculty of the Law Department of the University. "The skillful use of drugs," the professor said, "is but one of the elements that make the unit of medical skill. The physician must also study humanity as well as medicine, and fathom each patient's mind, discover its peculiarities, and conduct his efforts in harmony with its conditions. If he cannot read the book of human nature correctly he will not be an 'all-round doctor.'"

ORIGINAL CONTRIBUTIONS

CYSTS OF THE VAGINA; WITH PHOTOGRAPH OF A CASE SIMULATING CYSTOCELE

By HERMAN L. COLLYER, M.D.

Gynecologist to the West-Side German Clinic; Assistant Gynecologist to the French Hospital, etc.

THE frequency of cysts in the vagina, and the difficulty, in some instances, of diagnosis, appear to me of sufficient importance to bring the subject before your notice. Cysts may occur in any portion of the vagina, as well as in the external genitalia. Their most frequent site is found to be in the pouches of the vagina near the uterine attachment, and they are often overlooked, frequently rupturing and leaving the cyst walls to cicatrize, and form contracted bands in the vagina. These bands extend from the cervix antro-laterally, sometimes one on each side and frequently on one side only. Naturally enough these bands may be mistaken for probable cicatricial scars of a former rent in the vagina.

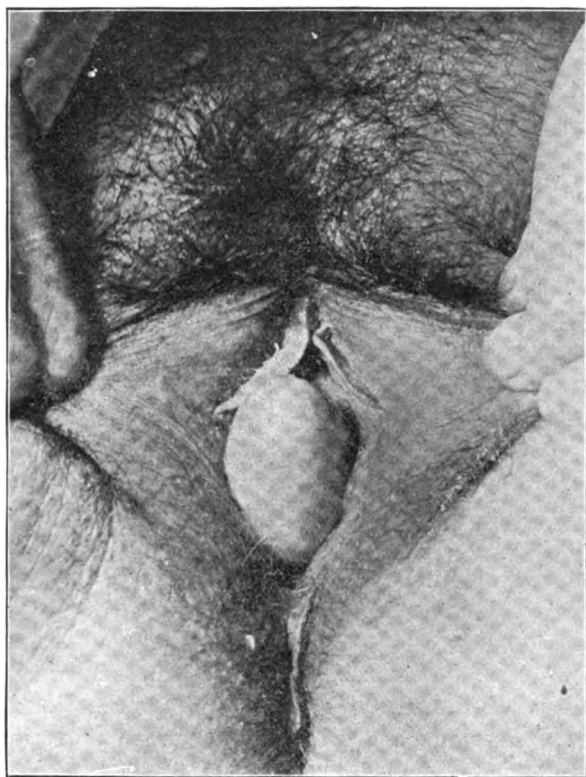
The clinical history is usually unaccompanied by symptoms other than occasional inconvenience, and the accidental discovery of a bluish, semi-translucent tumor in case of a physical examination for some other condition that may have arisen.

When these cysts spring from the lower and outer walls of the vagina, the attention of the patient is usually attracted by the protrusion, and in the majority of cases, by the inconvenience experienced during coitus; the general impression in the patient's mind being that she has prolapsus; and this opinion is not held by the patient alone, as it is of common occurrence for the physician to carelessly diagnose cysts of the anterior-superior wall of the vagina as cystocele, and those posteriorly situated as rectocele.

These cysts are found singly of varying sizes and shapes. Those in the upper vagina are usually ovoid. When small, they are round. When found on the wall of the vagina their most frequent shape is elongated, varying in thickness and in their course of direction. The cysts found in the lower vagina seem to have thicker walls, and hence lose their characteristic bluish, semi-translucent color, and have very much the same appearance as the vagina. Fluctuation is present in all instances; but owing to the locality, it is often imperceptible, and deceptive. The tenseness varies in different tumors; the larger kind is less tense, and compensates itself better. These cysts contain a white, or straw-colored fluid such as is ordinarily found in simple cysts. Only where they have become infected, do they contain pus. The thick-walled cysts are not so easily diagnosed owing to the absence of the bluish color, and to the fluctuation—passing unsuspected as procidentia.

The positive diagnosis of cysts can always be corroborated without the least danger (if the ordi-

nary necessary aseptic precautions are taken) by the use of the hypodermic syringe. It seems needless to state that, with cysts simulating cystocele (if the hypodermic is used for differential diagnosis), due care must be observed to avoid aspirating the bladder by passing directly through the cyst into that cavity. This mishap may easily be avoided by introducing a sound into the bladder to determine the relative thickness of the suspected tissue. In differentiating vaginal cysts, it is necessary to classify them by positions: First, the superior utero-vaginal; second, the anterior vaginal; third, the posterior vaginal; and fourth, the lateral vaginal. Fortunately, in the first, or superior utero-



CYST OF ANTERIOR VAGINAL WALL SIMULATING CYSTOCELE.

vaginal, the cystic signs are very typical, though it is well to consider the possibility of pelvic abscess, prolapsed ovary or tube, ovarian cyst, tubal cyst, hematoma, hematocele.

Second, the Anterior Vaginal: The most frequent and usual differentiation is cystocele, urethrocele, hypertrophies, suburethral abscess, and cellular abscesses.

Third, the Posterior Vaginal: In this class differentiation must be made between rectocele, varicocele, hypertrophies, and abscesses.

Fourth, the Lateral Vaginal: Cysts must be differentiated from hypertrophies, vulvo-vaginal cysts, abscesses, cellular exudates, and divided ends of sphincter muscles.

The chief importance is diagnosis; and by the aid of the sound one can readily arrive at a conclusion. When a mass is situated below the urethra and bladder, simulating cystocele, the sound, upon being introduced into the bladder, will be found not to

enter the supposed pouch of a cystocele; and with the index-finger per vaginam, palpating, the thickness of the tumor can readily be estimated, and fluctuation detected. The same argument holds good in the posterior wall, with this exception: the index-finger is introduced per rectum and the thumb per vaginam; and all the structures between can be easily distinguished.

The treatment is simple and self-evident to anyone having even a limited knowledge of surgery, and resolves itself into surgical interference only.

The best results are obtained by incising the tumor and removing the excess of sac-wall down to vaginal tissue. If the edges bleed freely, stitch the oozing surfaces together, thereby constricting the bleeding vessels.

The cysts located in the anterior vaginal wall are often richly supplied with arteries and veins, and due care must be exercised to ligate these vessels as soon as they are met, to prevent serious hemorrhage.

The small cysts which are found imbedded in the perineum should be dissected out, and the necessary number of deep sutures inserted to bring the edges together.

When cysts occur in cases having lacerations, especially perineal, their repair is of the utmost importance.

The same strict antiseptic precautions used in other operations are most important in vaginal surgery, owing to the peculiar functions of this circumscribed locality; and the strictest cleanliness must be observed, or complications are readily incurred. After the evacuation and the removal of the cyst have been accomplished, the dressings vary but little, according to the locality of the tumor; iodoform 10 per cent., or simple sterile gauze dressings, followed by antiseptic astringent injections, being sufficient. In most instances the gauze may be left undisturbed for three days, but may be removed earlier if indications arise, such as fetid discharge or undue discomfort, etc. The patient's confinement to bed depends upon the size and locality of the cyst, and may be only necessary long enough for her to recover from the effects of the anesthetic; but it must be remembered that all operations give better results under perfect rest. The vagina should first be scrubbed by means of a soft brush, or pledget of gauze, and green soap, lysol, or some antiseptic liquid soap should be freely used. After thoroughly scrubbing the crypts throughout the vagina and vulva the parts should be rinsed with bichloride sol. 1 to 2000, and by 95-per-cent. alcohol. This renders them fairly aseptic, at least as nearly so as possible. Much depends upon this technique of the operation to insure success. The instruments and all the dressings used should be boiled just before operating. The hands of the operator, and of those coming in contact with the parts, having been conscientiously disinfected, the danger of septic infection is reduced to the minimum, and perfect success should result.

The following case is illustrative of the difficulty attending diagnosis in these cases, and the accompanying illustration brings out the detail admirably. The patient was sent to me by Dr. SPICER, of New York city, whose suspicions I fully corroborated; many physicians before him had been of the opinion that it was prolapsus.

Mrs. D., 36 years old, of German parentage, had been married 15 years, giving birth to two children, the youngest of whom is now 12 years of age. After the birth of the last child she had a miscarriage, from which she recovered without permanent ill effects. During one of the confinements she sustained extensive lacerations of both the cervix and the perineum, which rendered her susceptible to many ills consequent on the lacerations. The first time her attention was called to the protrusion was about five years ago; her family physician at the time treated her for prolapsus. No improvement being noticeable, she visited other physicians in the hope of relief, but with the same result. During the past two years the mass seemed to become so large at times that dyspareunia became frequent and annoying, and she resolved to be relieved if possible. The appearance was typical of cystocele in a very advanced state. The tumor began on the anterior vaginal wall, from below, about $\frac{1}{4}$ inch back of the meatus urinarius, and extended up the vagina near the cervix, a distance of 3 in. The width tapered off to about 1 inch, being larger below than above. The covering is thick and in every appearance resembled the vagina with its corrugations. Bladder symptoms were absent, and on passing a sound into the urethra the thickness of three-quarters of an inch was determined.

When operated upon, the cyst contained about one and a half ounces of cystic fluid. The edges were trimmed and the existing lacerations repaired, the case making an uninterrupted recovery with perfect relief.

New York; 109 East Fifty-fourth street.

A MEDICO-LEGAL NOTE *

By A. WALTER SUITER A.M., M.D.

MUCH interest always attaches to any topic of medico-legal character, however limited may be its scope or infrequent its application.

In every case at bar when medical testimony is adduced the field and line of inquiry may be such as to involve and bring to consideration questions for the elucidation of which no practical or experimental data are at hand. Opinion evidence (so called) then necessarily becomes an essential factor, and conflict is inevitable.

Under these circumstances the personal equation leads to differences in judgment and consequent disagreements, which in a large proportion of instances serve to embarrass the administration of justice, cast reproachful imputations upon a learned

and honorable profession, and lower the high standard which should be accorded to medical science by the courts.

A recent experience suggests the presentation of these remarks to accompany a brief statement of questions which arose in a trial held at a term of the Supreme Court of the Fourth Judicial District in the State of New York under an indictment for murder in the second degree. The writer hopes by this note to particularly call attention to a previously undetermined point in the pathology of gunshot wounds and, by an illustrative case, to furnish an authoritative example for future guidance.

The prisoner, an indigent and disreputable person, was charged with causing the death of an individual by a pistol-shot wound inflicted during an altercation.

The ball entered the left side of the body of the victim while he was in an erect posture about one and one-half inches below Poupart's ligament in Scarpa's triangle, and slightly to the right of the median line of the thigh; passed downward, backward and transversely, skirting the urethra just behind the scrotum, to the opposite side of the body, where it was found at the autopsy imbedded in the gluteal muscles of the right side. In its course it severed several small vessels from the external circumflex branch of the profunda femoris and caused a rent in the coats of the femoral artery.

An immediate and profuse extravasation of blood into the surrounding tissues was produced which ultimately resulted in the formation of a traumatic aneurism. The hematoma attained to very large proportions and was said to have contained at least a half-pint of blood, with consequent distention of Scarpa's space.

The physicians who were summoned made an attempt by probing to locate the ball, but were obliged to desist, as its course could not be satisfactorily determined. Upon the day following the injury the patient was removed from his home to a hospital—a distance of 14 miles by rail—where shortly after his arrival the operation for ligating the supplying external iliac artery was undertaken and successfully performed. Symptoms of septic poisoning supervened and, although efforts were made, by opening the wound and draining, to avert the issue, death was inevitable, and took place upon the evening of the third day after the reception of the injury.

At the coroner's investigation, and subsequently at the trial, it was made to appear that the immediate cause of death was septicemia as a consequence of the absorption of septic organisms from the wound.

The writer, having been employed by the Court to prepare for his counsel a scientific theory of defense for the prisoner, proceeded upon the following facts and assumptions:

(1) It was admitted on the part of the prosecution that the immediate cause of death was septic infection consequent upon the wound.

(2) Ligation of the external iliac artery requiring

* Read before the Medical Society of the State of New York at Albany, January 28, 1896.

celiotomy was not performed until nearly 24 hours had elapsed from the time of the injury—meanwhile the patient having been removed from his home to the hospital, a distance of 14 miles, at an unfavorable season of the year.

(3) No attempt was made to ligate the femoral artery above the arterial wound, to cut down upon the point of injury, to cleanse and drain the surrounding tissues.

(4) Injudicious attempts at probing with an instrument, which presumably was itself a cause of infection, were undertaken—the attending physician not being able to testify that the probe had been cleansed and sterilized for a long time previous—possibly two years.

(5) A probe is an instrument commonly used in contact with septic organisms, and, if not properly and completely sterilized before its introduction into recently injured tissues, might, and presumably would, convey the bacteriologic elements which, with favoring conditions, would doubtless excite the process of fermentation of which septicemia is the final result.

(6) In the case on trial the evidence disclosed a probable direct relative connection between the possibly infected probe and the septicemia which caused the patient's death, and made apparent a serious measure of doubt as to whether the victim might not have survived had the circumstances been otherwise.

These facts and assumptions were placed in evidence chiefly by cross-examination of the witnesses called for the People, and also by direct testimony submitted on the part of the defense. Upon the theory implied therein the case of the defense was rested, the counsel relying upon the court to charge consideration by the jury of all reasonable doubt in favor of the prisoner. The jury returned a verdict of manslaughter in one of the lesser degrees, and in view of the previous bad record of the prisoner the extreme sentence was pronounced by the Court.

For the purpose of counteracting the impression likely to have been created in the minds of the jury, the prosecuting officer raised the important question: Can a septic bullet convey a specific micro-organism, unpurified by the act of firing, and thus infect a gunshot wound?

This interrogation was proposed to the writer while he occupied the stand as a witness for the defense. As a matter of opinion a negative reply was returned, and, without knowledge that definite or experimental study had been given to the somewhat novel question, the following formula of reasons in support of the opinion was expressed:

(1) A large proportion of the infectious bacilli would probably be removed mechanically by the passage of the missile through the weapon, by rapid transit through the air, and by the penetration of intervening clothing and the integument.

(2) Disinfection would be accomplished by the production of heat and the generation of germicidal

gases at the time of the ignition and explosion of the powder contained in the cartridge.

(3) The amount of heat produced by the friction of the ball in its passage through the barrel of the weapon would undoubtedly reach the thermal death-point of all infecting germs.

(4) The normal atmospheric pressure is fifteen pounds to the square inch, and the velocity of a bullet eighteen hundred to twenty-two hundred feet per second. The molecular motion caused in transit between these two highly resisting forces would without doubt continue and probably augment the disinfecting heat, and the latter would be intensified by any intervening compact substance, and by contact with the body itself.¹

This reply, although given in an impromptu manner, doubtless served on that occasion to meet and cover the objection raised by the prosecuting attorney, but even while the case was pending a remarkable series of experiments was in progress, conducted by Dr. LOUIS A. LAGARDE, captain and assistant surgeon, U. S. A., to establish the truth regarding the effect of septic projectiles in gunshot wounds. His studies have been very comprehensive and were characterized by an ingenious application of the universally recognized principles of bacteriological science. The results would seem to disprove the theories advanced by the writer when his opinion was demanded, which fact he now cheerfully acknowledges in the interest of science.

Details concerning Dr. LAGARDE'S experiments may be found in a special report to the Surgeon-General, U. S. A.; also in a paper read before the Pan-American Medical Congress, and in an article entitled "Septic Bullets and Septic Powders," which was read before the Association of Military Surgeons of the United States at Buffalo, N. Y., in May, 1895.

Healthy, susceptible animals were shot at ranges varying from ten to six hundred feet, and those only whose wounds were of a non-fatal character were kept for subsequent observation. The bullets used were such as are ordinarily fired from pistols and rifles, and all were infected a short time before being fired by placing upon them specific micro-organisms, particularly the bacillus anthracis from recent cultures. In the majority of cases the animals died a few days later with symptoms indicating infection corresponding with the germ used. In each instance cover-slip preparations of blood taken after death from various organs of the body showed the presence of the specific bacillus, and from them cultivations were made in various media. In some cases bones were struck and fractured with no apparent difference in result.

The justifiable conclusion was reached that hereby

¹ It is a well-known fact that "when a bullet is instantly checked in its passage, as by striking a bone in the body, it is often found partially fused."

"As a cannon-shot strikes an iron target, a sheet of flame pours from it." (Steele's New Physics.)

"The track of a cannon-ball is always observable at night as a sheet of flame."

"A pound weight falling 772 feet will generate enough heat to raise the temperature of one pound of water one degree." (Joule's Law in Physics.)

"Heat is motion," and, conversely, motion is heat.

is offered "a reasonable explanation for the occurrence of various infections, like tetanus, malignant edema, erysipelas, etc., in a fair proportion of the cases following gunshot injuries."²

Interesting experiments were also undertaken by the same observer to prove the septicity of the non-sterilized powders generally employed to charge the weapon and propel the ball, with affirmative results in the majority of instances. The results were negative when sterilization of the powder was accomplished beforehand, but when the previously sterilized powder was mixed with a relatively small quantity of street dust, or with 10 to 20 per cent. of earth, colonies of various bacterial organisms were incubated in due time at room temperature after being discharged into agar-agar or gelatin plates. It was found, as would be expected, that the germs were conveyed by the unburnt grains of the powder. In the black powder commonly used, it is stated that at least 43 per cent. escapes ignition at the time of the explosion.

Powder infected with anthrax spores was discharged into the ears of healthy rabbits at short range, and, in the instances where unburnt grains penetrated the skin, the animals sickened and died in from three to five days, cover-glass preparations of the blood from the heart, liver, and spleen revealing the presence of the corresponding bacilli.

It is expected that this paper will serve to demonstrate how an *a-priori* judgment, although admittedly plausible and based upon well-grounded principles in natural philosophy, may be disproved and corrected when the test of special experimentation is applied; that it will also furnish another illustration of the importance of the new science of bacteriology, and direct attention to the probable establishment of the fact that no theory of defense or prosecution can be sustained in cases involving questions relating to septicemia in association with gunshot wounds, without due regard for the possible infectivity of the penetrating missile.

Herkimer, N. Y.

COMPARATIVE THERAPEUTICS AND THE PHYSICIAN'S DUTY TO HIS PATIENT

By S. H. MONELL, M.D.

NOT long ago a paper distinguished by its honesty and candor was read before a section of the New York Academy of Medicine on the treatment of fibrous ankylosis of joints. I have just read an interesting review of this paper, and its discussion by another medical writer, who very fairly covers the ground of therapeutic procedures to be faithfully and patiently tried before surgical intervention; pointing out, also, that the latter is not of general utility. Now, in May, 1895, Dr. F. W. GWYER reported a series of 14 cases of fibrous ankylosis treated by a remedy which is entirely omitted from the consideration of the above authors. It is by no means an obscure and untried remedy, but

one of which the action is well understood. In point of fact its special adaptability to cases of fibrous ankylosis would place it in the front rank of non-surgical and curative measures. I refer to electrolysis by means of the galvanic current. My own experience confirms me in the confidence which Dr. GWYER expresses in this appropriate agent.

An examination of textbooks will show that in many cases the subject of medical treatment is much less fully discussed than is diagnosis, and the experienced practitioner often wonders as greatly why some remedies are omitted by learned authors as he does why others are included by them.

Comparative anatomy is a distinctive science embracing in its field all branches of anatomical knowledge. There is room in medicine for a practical work on comparative therapeutics. The ideal of the true physician is not easy prescribing but effective prescribing, and if his duty to his patient calls for the selection of the best remedy indicated he will be heroic enough to prescribe it if he can find out what it is. The professional devotion and personal sacrifices on which the physician's success is built would certainly carry him through the perusal of a masterly treatise on the science of therapeutics which should embrace in its comprehensive field all branches of knowledge on this subject.

I am prompted to this thought by observing the merely casual mention made of certain agents of the *materia medica* in that portion of modern books on practice which disposes of "treatment"—usually with classic brevity, if not with entire satisfaction to the reader.

Among therapeutic agents of more than common merit and of more than limited application may be classed the various and now numerous forms of electrical currents. The question for practical decision is should they continue to bear the relation to other *materia medica* that camp-followers bear to the regular soldiery, or should their recognition and use as weapons in the battle against disease obey the same rules that govern the selection and employment of belladonna, strophanthus, mercury, iron, or quinine? In other words, is it obligatory upon the physician to know when and in what cases electricity is indicated and to prescribe it? or may he with equal justice to his patient and himself ignore its existence in clinical medicine? In a chapter on electro-thermal currents the venerable JOHN BYRNE describes the benefits derivable from their use, and closes the list with these memorable words: "It is hardly necessary to remark that if the advantages here set forth and claimed for galvano-cautery are well founded,—and the writer believes and knows they are,—gynecologists who still continue to disregard or ignore clinical facts of such vital importance assume a moral responsibility for which there is no excuse or warrant."

The physician whose personal experience with the results obtained from adding to his hygienic, nutritional, and drug resources the potent efficacy of galvanic, static, and induction-coil currents would lead

² LOUIS A. LAGARDE, M.D., *Medical Record*, XLVII, No. 25, p. 785.

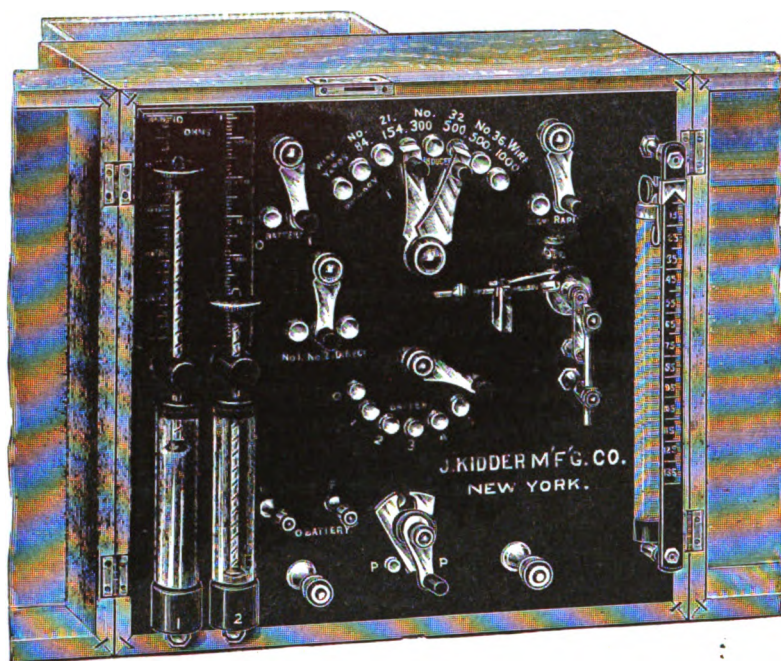
him to miss them more than any equal number of other remedies if they were withdrawn from his command, inevitably feels that the neglect of the general profession to employ or advocate these therapeutic resources is an undesirable disregard of medical progress.

If it is not the duty of physicians to follow close in the footsteps of advancing medical science, the motive for clinical observations, laboratory researches, and the devotion of genius and labor to improving therapeutics falls to the ground. JENNER's immortal benefaction to the race involved not only the discovery of vaccination, but its general adoption among civilized people.

About 1840 there was completed the great work begun by FARADAY in 1831, which gave us a remedy for, among other things, muscular rheumatism—about as sure to relieve it as vaccination is to prevent smallpox. But take your library textbooks and run

tions are made, that douches, iodine, astringents, caustics, tonics, and so-called sedatives are resorted to with persistent devotion on the part of the patient, yet does not the message of electro-therapy also bid us hearken to its unmistakable service in these cases? Between the indications for a surgeon's knife and the wellnigh useless routine of topical treatment of certain chronic uterine conditions there is a field unoccupied successfully by any therapeutic agent except electricity.

APOSTOLI, GAUTIER, and about two hundred other physicians have taught and demonstrated to the world for at least twelve years that particular galvanic methods will relieve certain states of the pelvic organs which no other medical measures will so satisfactorily combat. It would seem to be the duty of the general profession to keep step with such progressive and beneficial therapeutics. Nevertheless the number who do so does not exceed 2



DR. MONELL'S HIGH-TENSION APPARATUS.

down the list of lotions, liniments, firing, aquapuncture, acupuncture, counter-irritants, and internal remedies variously advised for this ordinary but annoying complaint. Electricity will indeed receive casual mention by the majority of authors, but how small a proportion of physicians give their myalgic patients as prompt relief as the proper use of an induction or static current will afford? In paralysis also, and in neuralgias, pains of many sorts, in chronic cachexias, hysteria, insomnia, and other typical states in which "electricity" is an invaluable aid to treatment, do not most patients wait in vain for their medical adviser to prescribe what is often demonstrably the most potent remedy indicated in the case? Take hysteroneuroses for example, or any of the formidable variety of pelvic affections which are long and faithfully treated by tampons and pessaries throughout the length and breadth of our land.

Granted that somewhat more extensive applica-

per cent. of the total. What is the net result to patients of the conservatism(?) of the remaining 98 per cent.? Is there any moral responsibility in the case? Probably the laity would consider that there was

In other pelvic conditions much valuable service is also rendered, when medicine wholly or partly fails, by secondary-coil currents of special character. They allay pain, establish a local anesthesia, combat venous engorgement, relieve congestion, increase peristalsis, hasten the absorption of effete products, or, in greater volume and less frequent periodicity will stimulate functional tone, activity, and muscular strength of the parts to which they are applied. Similar and equivalent services will not be rendered by any other agent at the physician's command, yet the great majority of the profession still disregard and ignore the momentous clinical facts. Both the essential apparatus and the operative skill to use it are happily now within easy reach of the

practitioner. With less difficulty than he acquires the simple technique of minor surgery, for example, he can familiarize himself with a proper coil apparatus. It is important to recognize, however, that for this class of work an ordinary faradic battery is unfitted. Not only is it necessary to command currents of special quality and attributes, but the apparatus from which they are obtained must admit of a large variety of adjustments to meet the indications of various cases. The important relation between a proper induction apparatus and good clinical results is far from being universally appreciated at the present time. In many cases "family batteries" with a single cell, crude rheotome, and toy coil are employed in vain attempts to secure the same happy effects in pelvic neuroses, congestions, inflammations, etc. which clinicians who report such effects only obtain through the use of high-grade and scientifically constructed apparatus of the most improved type.

As well may we attempt to investigate a colony of microbes through a low-power lens as to accomplish through a low-power coil what only a high-tension coil is qualified to do. It is a moderate estimate of the facts to say that probably not more than one faradic battery in every hundred in the hands of physicians at present is suitable for refined, skillful, and satisfactory gynecological treatment. It is less than three years since really adequate apparatus was available at all.

Two years ago not a single competent current controller for the regulation of high-tension secondary-coil currents was made; and while no therapeutic meter for such currents is likely to be invented in the immediate future, it has only been within a short time that any accurate substitute method of recording the treatment given has been proposed for clinical use.

Dissatisfied with every faradic apparatus formerly constructed, and finding them all open to various grave objections, I finally devised and have had made for me by the Jerome Kidder Manufacturing Company, New York city, a portable high-tension induction apparatus which is entirely satisfactory and comprehensive for all purposes for which coil currents can be employed in medicine.

With a view to placing in the specialist's hands an effective and impressive office apparatus, entirely dissociated in the patient's mind from the frequently discredited ordinary coil batteries in common use, I have designed a switchboard, as seen in the cut, on which only the adjusting parts appear.

The superiority of such an arrangement over the well-known humpbacked faradic box is unmistakable to the physician who has to encounter the mental idiosyncrasies of certain classes of cases. Patients who have "tried faradism" with alleged injury and are prejudiced against it find no suggestion of their *bête noir* in this impressive and unfamiliar switchboard. This is a not unimportant point when long-coil bipolar sedation is imperatively indicated and there is no alternative procedure equally efficient.

The improved apparatus which bears my name also contains the original secondary-circuit rheostats suggested by the author which are calibrated to permit the accurate report of every application made in practice. The method of dose-registration suggested by me is the first to conform to scientific conditions of electrical measurement. But a complete account of this detail of technique cannot come within the limits of this paper. The application of the point involved in these remarks is not limited to any branch of therapeutics; it applies to all.

In conclusion, it may be stated as a legitimate expression of fact, that what is now most urgently required at the bedside of the invalid is not so much further advancement in laboratory medicine as more generally diffused and accurate knowledge of the clinical results already obtained by demonstrated methods, and an appreciation of the bearing of these results and methods upon medical practice.

Brooklyn; 865 Union street.

Gunshot Wounds in the Transvaal.—The recent crisis in the Transvaal, as shown by the report of Prof. LIEBMANN, secretary-general of the St. John Ambulance Association in South Africa, is responsible for about forty cases of gunshot wound. The report chronicles some unique data for students interested in this class of injuries, of which the following is a summary: Wounds made by the Lee-Metford rifle were much cleaner and healed more quickly than injuries inflicted by any other weapon. One burgher, shot through the lungs, left the hospital convalescent the next day, and another, shot through the head, lived for ten days afterward. The Lee-Metford bullet completely shattered bone it came in contact with, and did little injury where the wound was confined to the fleshy parts, while the Martini-rifle bullet made large, jagged, ugly wounds with bad apertures of entrance, and worse of exit. The Lee-Metford is, therefore, conceded to be inferior to the Martini rifle.

X-rays and Bacteria.—Surgeon-General STERNBERG, U. S. A., is reported to have said, in discussing the possibility of the application of the X-rays to the destruction of tuberculosis bacilli? "It is not impossible that the Röntgen rays may prove to have a certain germicidal value. It is well demonstrated that exposure to direct sunlight does destroy pathogenic bacteria. The electric light gives a similar result. There is also some recent experimental evidence showing that a strong electric current may destroy the vitality of bacteria; but in proving the germicidal power of electricity it has not thus far proved to be available for the treatment of infectious diseases, and it is entirely doubtful whether the X-rays will be available for the destruction of disease germs in the bodies of living animals." Surgeon-General STERNBERG went on to say "that the publication of the report of the experiments of two prominent Chicago physicians appeared to be premature." The value of these experiments could not be, he said, estimated until a detailed account of the methods employed had been published. He had noticed that reports of experiments in some of the recent medical journals upon bacteria did not support the view that the Röntgen rays have any decided germicidal power. He was not prepared to accept the simple newspaper statement as to the result of the alleged experiments in Chicago.

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EXPERT-TESTIMONY ACT.—We publish in another column the contents of "An act to Regulate the Employment of Medical Expert Testimony in Criminal Proceedings," which was given a hearing before the State Assembly Committee on Judiciary on Wednesday, April 22. The act is the outcome of the deliberation of a special committee appointed for the purpose by the State Medical Society, and has the support of the Committee on Legislation, as well as that of a large number of alienists and medico-legal experts throughout the State. By the existing law it often happens in criminal proceedings that the prisoner suffers detriment from an inability to secure expert testimony in his own behalf. That the defendant should have every opportunity to prove his innocence is a fundamental principle in criminal jurisprudence; and although at present such a one may have counsel assigned to him by the Court, the counsel is at the serious disadvantage of being unable to controvert or explain the opinions of experts who are paid for by the District Attorney's office. In the present act, provision for experts is made simultaneously for both sides, so that there shall be an equal allotment in the number and standing of paid witnesses. The part of the bill which refers to the report of the experts is obscure. From the present

wording it is impossible to understand whether the experts are to express individual opinions or whether they are to act as a commission and give a final decision. We would suggest that this part of the bill be amended. Much unnecessary discussion will be avoided by the provision for the limitation of the examination of the expert witnesses to the matter in hand. The object of the bill is in every way necessary and judicious, and we hope soon to see it become a law.

LEAKY PRIVATE GARBAGE-CARTS.—The private garbage-cart, with its leaking wooden box, is still allowed to trundle its noisome load along our streets and scatter its filth on pavements otherwise clean and wholesome. Neither the Health Department nor the Street-cleaning Department, though both are responsible, seems to be capable of abating this nuisance. But there is one feature of this business that deserves special comment. The private garbage-cart is patronized chiefly, if not entirely, by the wealthy classes, who are thereby not required to separate the ashes and garbage in accordance with the sanitary ordinances, which are now rigidly enforced in the poorer districts. At the hours of the day when such thoroughfares as Fifth and Madison avenues, Fifty-seventh and other cross streets, are most thronged by fashionable pedestrians, the old uncovered and leaking garbage-cart of a century ago is gathering its filth in front of the homes of the wealthy, while the liquid portion runs freely out upon the street. If one notes the residences where the ashes and garbage are brought out in a festering mass, and dumped into this primitive cart, he will find that many are occupied by members of the Committee of Seventy, and that one has in front the insignia of the Mayor. It is a sad reflection upon the efficiency of our health authorities that there should be under their jurisdiction a favored class of nuisance-makers. Our contention is that every private garbage-cart should be licensed and compelled to comply with sanitary regulations.

THE NEW WOMAN.—Considered from a scientific standpoint the new woman is bound to be a distinguished success. The BULLETIN is not referring now to the new woman evolved as the result of the labors of the enterprising gynecologists, or of the gentlemen who advertise so assiduously their ability to remove all physical imperfections, and to make an angel of a fiend; but to the woman who is fast encroaching on man's peculiar style of dress—that is to say, those portions of his attire which

are *en évidence*. We hail with delight the day when the long skirt will no longer sweep the streets of refuse—even though this process decidedly assists the Street-cleaning Department—bringing into our homes the products of disease, whether it be the germs emanating from man's expectoration or those peculiar to decaying plant-life and animal excreta. The bloomers, from a sanitary standpoint, are unquestionably not open to the charge which may be brought against the trailing skirt. Further still, in the warm season of the year, when many of the fair sex dispense with the wearing of the "unmentionables," their limbs and other organs are kept in a better condition as regards personal cleanliness when encased in bloomers than when simply loosely concealed by drapery. Gradually woman is returning to the condition of Mother Eve in matters of dress, as regards simplicity, setting an example which possibly man, so far as he can, might to advantage follow. It is not for a moment to be thought that as woman encroaches on man's dress he is going to forsake his for that which she discards. On the contrary, as woman dispenses, in a measure, with attire of an unnecessary character, why should not man, in this climate at any rate, dress more in accordance with comfort, to say the least, during the heated spell? The graceful toga in the month of August will make him more comfortable, and therefore more equable, than do the stiff starched shirt and tight trousers. Altogether it would seem as though the new woman were not only on the road to bettering herself, but that she was also instructing man in regard to a more sensible method of attire. Let the good work go on, provided the horrible things predicted in the lay press as resulting to man do not see the light of day. Perhaps, in order to advance the cause of sanitation, however, there are medical men who will gladly stay at home and "tend the baby," while the fair sex is interesting itself in matters concerning the reform of hospitals and dispensaries, of which up-to-date man has made such a ghastly failure.

HOSPITAL FOOD AND COOKING.—In connection with the recent complaints by certain members of the resident staff of one of our city hospitals against the quality and preparation of the food of the institution, facts were brought out that proved the standard of the rations supplied to be up to the requirements, but showed the preparation of the food to be unskillful and unsatisfactory. The matter-of-fact way in which these gentlemen discussed the prepara-

tion of the hospital food points to the conclusion that a discrepancy exists somewhere in the particular executive branch of the institution in question that controls the administration of the hospital mess, and that at least some members of its staff do not appreciate the importance of the relation of food and its preparation to the treatment of diseased conditions. It would seem, moreover, that the attention of that body is thoroughly absorbed in combative measures of treatment, to the exclusion of the all-important matter of diet and food for the patient; else the employment of a cook having little or no knowledge of practical cookery would not be tolerated for a time sufficient to breed discontent among resident physicians, who, it is claimed, get choice dishes from the hospital kitchen. Patients must fare worse!

At least an elementary knowledge of practical cookery and the preparation of food for the sick should be part of the education of every physician, and a thorough knowledge of the chemistry of cooking is as much a factor in his education as is anti-sepsis; but it is not given the attention it should demand, and in some cases is treated entirely as a secondary consideration. This is evidenced and emphasized by the way in which the subject is ignored by at least one of our institutions.

In the smallest of our army hospitals, at posts away from civilization, where the straight Government ration is supplemented only by a supply of fresh beef, the greatest attention is paid to the preparation of food for patients. In the first place, the hospital steward is, *ex officio*, *chef de cuisine*, and his appointment to that position is made upon successfully passing a searching technical examination, in which the chemistry of cooking and a practical knowledge thereof form a material point. The cook is instructed by the hospital steward, and the latter is responsible for the proper preparation of every dish that leaves the hospital kitchen. We will venture the assertion that hospital cooks of the United States Army are better trained in practical cookery and have a better understanding of the theory of cooking than the majority of *chefs* of our better-class hotels. The army cook under the new *régime* would laugh at the idea of starting his soup with boiling or hot water, or his boiled beef with cold. He knows the function of baking-powder and of yeast in bread-baking, and can tell you why he does not use them in his pie-crust.

Civil hospitals, surrounded by conveniences as they generally are, should have at the head of their culinary department a cook capable of preparing

properly a diet for the most fastidious, and he should have more than a practical knowledge of his business. The poet correctly delineates the true cook when he says:

To boil up sauces and to blow the fire
Is anybody's task; he who does this
Is but a seasoner and brothmaker.
A cook is quite another thing. His mind
Must comprehend all facts and circumstances.

The function of the cook where the sick are concerned is important, and it would seem that a failure to recognize the necessity of good cooking in hospitals would be sufficient warrant for charging inattention to essential details of scientific treatment as a whole. There does not seem to be any reason why so deplorable a state of affairs should exist at one of our foremost hospitals, and the attention of heads of institutions where this evil exists might profitably be directed to the establishment of a system of instruction in scientific cooking and dietetics for every hospital attendant until he or she is qualified to supervise the proper preparation of food for the sick.

MODEL APARTMENT HOUSES.—In pursuance of the objects of the Conference on Improved Housing, held in New York city, March 3 and 4, the Committee on Model Apartment Houses of the Improved Housing Council have determined to make a beginning in the effort to provide suitable dwellings for the wage-earners of New York. With this end in view, it invites architects to submit plans for a block of dwellings, the design and construction of which shall conform to the principles and specifications contained in its statement of particulars. The plans are to be for an entire city block, supposed to measure 200' x 400', or an equivalent of 32 city lots. The object in submitting the work of preparing plans to competition is to secure the best possible type of structure for the use intended that will be specially adapted to the conditions that prevail in New York, as regards a plentiful supply of light and fresh air for rooms, staircases, corridors, etc., privacy, proper arrangement of bedrooms and water-closets, cross ventilation, precautions against fire, etc. The conditions of the competition are contained in the following minimum requirements, an approximation of which will be requisite for consideration:

1. The plans must comply with all the requirements of the New York Building Law.
2. Except in the case of those portions of the building occupying the corner lots not more than 70 per cent. of the total area of the land is to be occupied, the rest being left vacant for light and air. This does not apply to the ground floor or to the basement.
3. The space occupied on floors above the ground floor by

walls, partitions, corridors, staircases, and other parts used in common, must not exceed 15 per cent. of the total area of the land.

4. The clear rentable space in apartments free of walls, partitions, corridors, stairs, and other parts used in common must on every floor above the ground floor be equal to at least 55 per cent. of the total area of the land. In those portions of the buildings occupying the corner lots it is expected a greater percentage of rentable space may be obtained.

5. No courts inclosed on all sides shall contain less than 900 square feet and should be as nearly square as possible; and no court inclosed on three sides shall be less than one-quarter as wide as it is deep from the open end.

6. No wells or light shafts shall be used.

7. All rooms must be lighted by windows opening directly upon the outer air.

8. All apartments must have cross ventilation.

9. All staircases and corridors must be well lighted at every floor by windows opening directly upon the outer air.

10. The building must be divided into compartments by unpierced fire walls extending from top to bottom, and there shall be an average of at least one such compartment for each city lot occupied, but such compartment need not conform to the size and shape of the 25 foot x 100 foot lot.

11. Each compartment must have its own independent fire-proof staircase inclosed by brick walls with a separate entrance from the street.

12. Each compartment must have a hand-lift from the basement, so placed as to be accessible to all the families of the compartment.

13. Each suite must have a separate water-closet, opening directly upon the outer air.

14. It must be possible to enter directly into the living room of each suite from the public corridor or staircase hall without passing through any other room.

15. It must be possible to reach every bedroom of a suite without passing through any other bedroom or the public corridor.

16. Every living-room must contain not less than 144 square feet of floor space, and every bedroom must contain at least 70 square feet of floor space; but the average of all the apartments in a house or in a block shall not be less than 400 superficial feet of clear floor area.

17. It is desirable that as many apartments as possible shall have at least one window opening toward the street, so that they may be classed as front apartments.

18. Buildings facing the avenues should be so contrived that they may be entered from the streets, in order that none of the frontage suitable for stores need be lost.

The buildings are to be six stories high. The ground floors on the avenues are to be arranged for stores, which shall have ceilings eleven feet high in the clear. Ceilings of apartments are to be 8 feet 6 inches high in the clear. Each suite shall have a sink and a place for a range. The apartments are to be in suites of two, three, and four rooms, and the following ratio is suggested: Thirty per cent. each of two and four-room apartments, and 40 per cent. of three-room apartments.

With a proper consideration of hygienic conditions and good sewerage, the accomplishment of this desirable venture will lower the mortality among the class of people it aims to lift from influences detrimental alike to morality and health and lessen the predisposition to disease that is a never-failing accompaniment of the characteristic modern tenement, with its dark corridors and hallways and stuffy rooms. Frequently the regulation cubic air-space *per capita* in these latter is made to do service for as many as five instead of one. Other unhygienic influences, such as the bad situation of water-closets that do service for several families, are markedly apparent in our crowded districts.

Names for Röntgen's Photography.—Among the many names used to designate the discovery of Prof. Röntgen are the following: X-ray photography, shadowgraphy, radiography, cathode photography, cathography, electrography, fluorography, sciagraphy, skotography, and Röntgenography.

GENERAL MEDICINE

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The Precipitation of Toxalbumins with Nucleinic Acid.—M. TICHOMIROFF (*Zeit. f. phys. Chem.*, 1895, XXI, p. 20)

Up to the present, toxic metabolic products of micro-organisms have been separated by precipitation with ammonium sulphate. The author shows that, in many instances, nucleinic acid in acid solution can be used to advantage. Tetanus and diphtheria toxins may readily be precipitated from their solutions by nucleinic acid, and in part also the putrefactive toxins. On the other hand, the toxins of cultures of cholera bacteria and streptococci are not precipitated.

Pentosuria, a New Anomaly of Metabolism.—SALKOWSKI (*Berlin. klin. Woch.*, 1895, No. 17)

Three years ago the author published a case of this nature. In the present paper he reports two additional cases in which he found pentose—a carbohydrate with 5 atoms of carbon. He first describes *in extenso* the method by which pentose can be obtained from the urine, and also gives a simplification of Tollen's reaction for pentose. The ordinary sugar tests were shown to be not characteristic; the fermentation test and polarization were wholly negative.

SALKOWSKI is unable to say anything definite as to the clinical significance of pentosuria. In cases of neurasthenia and greatly reduced urine, he believes the necessity of testing for pentosuria is indicated. The important question whether pentosuria has any connection with diabetes mellitus was also considered. His experiments upon this point gave totally negative results.

The So-called Interstitial Cells of the Testis and Their Significance in Pathological Alterations.—D. HANSEMAN (*Virchow's Archiv.*, 1895, CXLII, No. 3)

In the interstitial tissue of the testicles of many animals, as well as in man up to the fourteenth or fifteenth year—from that age on but few in number—there are to be seen peculiar, large, frequently richly pigmented cells having large vesicular nuclei, and separated by a fine intercellular substance. The author found these interstitial cells present in small number in a hibernating marmot, while in an awake and very active animal of the same species they were observed in considerable numbers.

In man they have no constant relation to the blood and lymph vessels, and as little do they stand in connection with the degree of spermatogenesis. They do not take an active part in the various forms of interstitial orchitis. On the other hand, a significant multiplication of these cells was observed in chronic cachectic states, being quite constant in chronic phthisis, cancer cachexia, and syphilitic

cachexia with amyloid, without other participation of the testicle. The pigment accumulation is not to be interpreted as a pigment atrophy, for the cells are largest when they are pigmented.

These cells appear to represent an independent organ possessing an alterable physiological function. Their pathological significance lies in the fact that they are to be considered as the starting-point of definite tumors—those large-celled, alveolar sarcomata, the cells of which resemble accurately the interstitial cells, and which, because of their extremely fine intercellular substance—demonstrable only by the use of certain stains—are often wrongly classed with the carcinomata.

The Influence of Alcohol on Proteid Metabolism.—R. H. CHITTENDEN (*The Diet. and Hyg. Gaz.*, XII, 1896)

It has been shown by experiment that when alcohol is administered in small quantity it may be completely burned and its oxidation attended with the liberation of a corresponding amount of energy; thus to alcohol can be attributed a certain food value. The author, in experimenting on dogs, found that the ingestion of alcohol led to a slight decrease in the output of nitrogen, and at the same time there was a marked and constant increase in the output of uric acid. The conclusion arrived at was that alcohol, so far as its general influence on proteid metabolism is concerned, acts chiefly as a non-nitrogenous food, and, as such, would naturally yield a certain amount of energy by its own oxidation, and so tend to protect slightly the consumption of proteid matter, and hence conserve the tissues.

DONOGÁNY and TIBÁLD, in their experiments, show that very small doses of alcohol tend to increase the total output of nitrogen, while larger doses diminish the excretion of nitrogen; uric acid being always increased in amount, not only absolutely, but also in proportion to the total output of nitrogen.

STRIM endeavored to ascertain how far alcohol can take the place of fats and carbohydrates, compared isodynamically, in the protection of proteid matter, and also how far alcohol is of importance in aiding or retarding the absorption of nitrogenous foods from the alimentary canal. He experimented upon his own person after the body had been brought into a condition of nitrogenous equilibrium, and his results tend to show that 50–80 gme. of alcohol, taken daily, have no very marked action. The absorption of proteid matter seemed to be facilitated by alcohol in one experiment, while in a second one there was slight retardation. Similarly, the general effect on proteid metabolism was slight.

The author states that from the results quoted, it does not necessarily follow that the moderate use of alcoholic drinks will tend to economize the resources of the human body by diminishing proteid metabolism.

Preservation of the Natural Color of Pathologico-anatomical Preparations.—MELNIKOW-RASWEDENKOW (*Cent. f. allg. Path. u. path. Anat.*, 1896, VII, No. 2, p. 50)

In the ordinary method of preserving pathologico-anatomical preparations, the more or less intense decolorization of the latter is an undesirable result. The natural picture of the pathological alterations is thereby artificially transformed and quite dissimilar to the original appearance.

In order to avoid such decolorization and to permanently retain as completely as possible the natural

differences of color in the preparation, the author employs the following method:

1. The fresh preparation to be preserved is treated with pure formalin (40-per-cent. sol. chemically pure formaldehyd); although the specimen is somewhat decolorized by this treatment, the histological constituents are fixed. 2. After removal of the formalin, treat the specimen with 95-per-cent. alcohol; this partially restores the previous tones of color. A complete, natural picture of the pathological alterations of the organ, with all the characteristic peculiarities of color, is finally attained by transference of the preparation to a solution of acetate of potash 30.0, glycerin 60.0, distilled water 100.

In the employment of these well-known substances (formalin, alcohol, kali aceticum) for the purpose described, very much depends upon gauging the time and manner of action of them to the especial peculiarities of the specimen to be preserved.

In No. 4 of the same journal, Dr. JORES presents a modification of the above method. The directions are as follows:

(1) Hardening in a solution of:

Sodium Chloride	1 part
Magnesium Sulphate	2 parts
Sodium Sulphate	2 parts
Water	100 parts

To which 5 parts (or 10 parts if indicated) of a 40-per-cent. solution of formalin are added.

(2) After sufficient hardening, pour off the formalin solution and wash with 95-per-cent. alcohol.

(3) Place in 95-per-cent. alcohol until original color is restored, or until the object is penetrated thoroughly.

(4) Preserve in a mixture of glycerin and water equal parts.

The Infectious Nature of Rheumatism.—F. ROWLAND HUMPHREYS (*Med. Press and Circ.*, CXI, No. 19)

The author's hypothesis is this: The poison of acute rheumatism is one which may manifest its presence in a number of ways, of which rheumatic fever is only one, though the severest, form.

The general characteristics of acute rheumatism are a tendency to relapse, to recurrence, and to a rapid abatement of symptoms under the use of the salicylates. Along with these symptoms go the tendency to cardiac complications, to chorea, and to minor disorders.

This paper is based on notes which cover about 240 cases of illness in some 160 different persons. Of these, 39 were rheumatism of the subacute or acute type; 78 tonsillitis; 32 pharyngitis; the balance of cases closely resembling acute rheumatism in their signs and symptoms, including some cases of erythema and urticaria.

By the above facts, the author was led to regard these cases as closely allied to infections, and that these rheumatic complaints are most likely the means by which the disease is transmitted, taking the character of an ambulatory attack whereby the germs, which the author assumes cause the disease, are distributed, developing as acute rheumatism in some persons, as one of the minor complaints in others, but with a tendency to interchangeability of character in the same or different individuals; the rheumatic poison being at one time shown by a skin eruption, at another by a joint affection, at a third by an attack of pharyngitis or tonsillitis.

Phthisis is a disease to which rheumatism may be very closely compared. Phthisis has its skin,

throat, lung, abdominal, and joint affections, which might well have been considered to be separate affections but for the advancement and development in recent years regarding diagnosis and accurate study of cases. Nowadays we search for the bacillus where the characteristic appearances are absent. It may be said that acute rheumatism has no characteristic appearances—only characteristic localities—and until we find out the germ that seems to cause the disease it will be impossible to say absolutely what is and what is not a rheumatic lesion.

The writer cites 5 cases showing the occurrence of the minor complications (*i.e.*, tonsillitis, pharyngitis, and erythema) in the course of a severe attack of acute rheumatism.

Dr. HAIG-BROWN has pointed out the very close connection which exists between tonsillitis and rheumatism—the tonsillitis being specially of the follicular variety. Dr. CHEADLE and Prof. OSLER, of Philadelphia, are quoted as agreeing with him in the view that valvular disease of the heart was often accompanied by follicular tonsillitis.

The author remarks that when acute rheumatism is preceded by an acute throat attack, usually one attack terminates before the other begins; often a week or more intervening between one attack and the other, giving the appearance of a relapse rather than of a consecutive illness.

The author goes on to show that each of the minor complaints he has enumerated as accompanying acute rheumatism may immediately precede an attack of it in another person, either in the same or in another form of the complaint after the period of incubation corresponding to a period extending from seven to twenty-one days.

A series of cases is mentioned showing how the disease has gone from one person to another. Here is one of the series: The mother, in November, had a mild attack of a rheumatic nature. Early in January a daughter had an acute attack of tonsillitis, with erythema, endocarditis, and acute rheumatism. A lad staying in the house (who had previously had an attack of acute rheumatism) three weeks later had a subacute attack of the same complaint. In May a lady visiting in the house had an attack of pharyngitis, and at the same time one of the servants had one of subacute rheumatism. At the end of the same year another servant had a mild attack of rheumatism, and three weeks later the mother had an attack of herpes following the course of the post-auricular nerve. Quite recently she has had an attack of endocarditis with cerebral embolism.

This is an instance of a disease appearing time after time in the same household, two or more persons being attacked at the same time.

The author further states that herpes, in one form or another, seems to be no uncommon occurrence in persons who are subject to attacks of a rheumatic nature, either at the same or at different times.

Another complaint is perityphlitis, found under similar circumstances. The author has observed that nearly every case of tonsillitis has some degree of tenderness in the right iliac fossa. Dr. BEVERLY ROBINSON is of the opinion that appendicitis is closely connected with rheumatism and yields readily to the salicylates.

The paper closes by asking whether these cases do not in a measure show that these throats are in reality a manifestation of the presence of the rheumatic poison circulating in the system. Does it seem very far-fetched to say, then, that rheumatic fever itself is an infectious disease and that these throats spread it?

NEUROLOGY AND PSYCHIATRY

Department Editor

PEARCE BAILEY, M.D.

Collaborators

ALBERT WARREN FERRIS, M.D., LEWIS A. CONNER, M.D.,
THOMAS PECK PROUT, M.D., and L. PIERCE CLARK, M.D.

Tumors of the Corpus Callosum, with Account of a Case.—W. B. RANSOM (*Brain*, Part LXXII, p. 531)

The case was that of a woman, aged 24, married two and one-half years, never pregnant; of excitable, neurotic disposition; no syphilis, moderate alcoholic indulgence. Six months after marriage a fit occurred, following a mental shock. At one time the fits recurred every other day; for the last few weeks only once a week. Each fit was preceded by aura in the form of general excitement, with peculiar sensation in the temples. Twitching began in left hand and arm, passing to left leg, left side of face, with deviation of head and eyes to the left. Tongue not bitten. Urine occasionally escaped. No hysteroid attacks followed. During past year excitability has much increased, and her usual headaches have been more severe, pain being most intense at nape of neck and in temples. Eyes prominent and staring, past six months; but no thyroid enlargement; no palpitation; no sweats; pulse 120.

Under bromide treatment fits ceased, but mental excitability increased, and she became unmanageable. Delusions of persecution appeared. Tongue coated, constipation present. No nausea or vomiting. Generative organs normal. No paralysis, no alteration of general sensation or special senses. Slight general-intention tremor; gait uncertain, tottering to the left. Reflexes normal; pupils normal. Commencing double optic neuritis. Under treatment with chloral and bromides patient improved until a month had passed, when the fits recurred, followed by bi-temporal headache, vomiting, double ankle clonus, and loss of tactile sensibility in both legs—all of which disappeared in two weeks.

Four months after the first examination the patient manifested no symptom of serious organic disease of the brain, except the optic neuritis. She died very suddenly. At the necropsy a tumor of the size of a Tangerine orange was found between the cerebral hemispheres, springing from the middle of the corpus callosum and bulging slightly into each lateral ventricle—an oval-celled sarcoma.

The author appends an analysis of twelve cases of tumor of the corpus callosum. *Headache* was absent in five, and well marked in only two cases. *Vomiting* occurred only in two cases beside the author's, and in his only after a fit. *Optic neuritis* was noted in four and stated to be absent in four. *Dementia* was the only sign of mental disease common to all, excepting one case, of which the account was imperfect. *Convulsions* were present in three of the twelve cases. Some degree of *paralysis* was observed in seven cases, and in six it took the form of hemiplegia, with some rigidity. The leg was earlier and more markedly affected than the arm, and in one the face escaped. *Aphasia* was noted in one case. In all the cases with paralytic symptoms the tumor had invaded the white substance of the hemispheres. *Sensation* was normal in six cases.

In one case the special senses were markedly affected. In two cases the patellar tendon reflex was increased on the paralyzed side. *Ankle clonus* ap-

peared in one case after a fit only. Pupil reflexes were normal except in one case, where there was pressure on the optic nerves. The cranial nerves almost invariably escaped. The duration of the symptoms varied from five weeks to three years. Death occurred from coma in six cases, in two cases from multiple hemorrhages, in two from pulmonary complications, in two in an unexplained way.

The author concludes that a positive diagnosis cannot be made. Early and marked mental degeneration appears characteristic, taking the form of irritable insanity with delusions in the chronic cases. Hemiparesis with rigidity, or convulsions without paresis—the spasms being bilateral, but more intense on one side—accompanied by integrity of the cranial nerves, and little or no change in the tendon reflexes, combine to strengthen the suspicion of tumor of the corpus callosum, without being diagnostic.

The Neuron in Medicine.—SANGER BROWN (*Amer. Med. Jour.* XXVI, Jan. 4, 1896)

The author explains that the term "neuron" is meant to designate the entire cell unit. The neuron then consists of a cell body and processes, the body containing a large nucleus and a nucleolus.

Processes are of two kinds: (a) Axis-cylinder processes (essential); (b) protoplasmic processes. An axis-cylinder process is a long, slender fiber ending in an arborization. Protoplasmic processes are comparatively short, and branch close to the body and are soon lost.

Neurons with long axis-cylinder processes are called projection neurons, and those with short axis-cylinder processes are called the intermediary neurons. Continuity of fibers has never been observed forming a connection between two neurons. The nucleus is the highest portion of protoplasm in the neuron and presides over the nutrition of every part of the cell. The essential function of the axis-cylinder process is the conducting of nervous impulse. This may or may not pass through the body of the cell. The view is generally entertained that the nucleated body of the neuron may act as an automatic generator of nerve-impulse. The neurons are divided into upper, or central and lower, or peripheral, and lesions affecting them are discussed.

The author then calls attention to LEPINE and DUVAL's theory, giving an organic basis for many of the functional manifestations of the nervous system. Thus, sound sleep is explained by the so-called amebic properties of the cell whereby the arborizational endings of the peripheral and central neurons become separated and completely isolated from one another. On the same basis recoveries from hysterical paralysis are explained.

Melancholy Satisfaction, This.—A society in Paris, consisting of scientists of note, having about one hundred members, several of whom are women, has the ghastly purpose of placing the brains of the members at the disposal of surviving comrades for examination and dissection. The society, a deficiency as the Mutual Autopsy Society (*La Société la plus commune mutuelle*), and was organized in brains, neatly catalogued, are next to the fact that glass case at the end of the museum no deformity of the fifteenth, which in life was attributed to the fact ABEL HAVELACQUE, director of the lower limbs had Society, now rests immersed support the weight of the of the dissecting-room, which will meet to weigh, perhaps one of the most marked

OBSTETRICS; GYNECOLOGY; PEDIATRICS

Department Editor

THOMAS S. SOUTHWORTH, M.D.

Collaborators

GEORGE G. WARD, Jr., M.D., GEORGE R. WHITE, M.D.,
EDWARD N. LIELL, M.D., WILLIAM B. NOYES, M.D.

Enuresis in Children.—HAROLD WILLIAMS (*Bost. Med. and Surg. Jour.*, CXXXIV, No. 11, 1896)

Sixty-two cases of nocturnal enuresis are studied by the writer, 28 in boys, 34 in girls, of ages from 2 to 15. In 13 cases definite causes of reflex irritation were discovered, with prompt cure of the enuresis in 12 cases. These causes were: Adherent prepuce, 4 cases; vulvo-vaginitis with gonococci, 1 case; oxyuris vermicularis, 5 cases; chronic ileocolitis, 1 case; prolapse of the rectum, 1 case. Anemia and a neurotic temperament and history were present in most of the cases. Forty-nine cases remained unexplained.

RACHFORD (*Arch. Ped.*, Nov., 1893) gives three factors which cause incontinence of urine in children: (1) Irritable and unstable nerve centers; (2) anemia, with consequent malnutrition; (3) reflex stimulation of certain nerve centers in the lumbar cord.

To these three classes the author adds: (4) Direct volition; (5) auto-suggestion; (6) retarded mental development; (7) enfeeblement of the will.

All cases of enuresis, therefore, may be divided into two classes:

1. Those of local organic origin, such as malformations, etc.
2. Those of functional origin.

Treatment must vary with the cause. Punishment is only applicable to the cases of direct volition, where the child wets the bed because it is afraid to get up in the dark or cold room. Hypnotic suggestion is curative in those cases, which the writer believes to be frequent, where some form of auto-suggestion is the real cause.

Retarded mental development or enfeeblement of the will may cause the bladder, with its nerve supply, to remain in the condition which is normal during the first two years of life, namely, free from the control of the brain. It is obvious that nothing but education of the brain can help this condition. Nocturnal incontinence may be a symptom of grave mental disease if it occur in adult life. In a child, as a rule, it is merely a symptom varying from a child's willfulness or carelessness to genuine nervous disease.

The author recommends iodide of potash as an extremely valuable tonic remedy.

Typhoid Fever in Infants.—WILSON O. BRIDGES (*Med. Rec.*, 1896, XLIX, No. 12)

To demonstrate that infants under three years are not immune to typhoid fever, and that the disease is the same as in the adult, the writer has observed several cases, hitherto unreported, are carefully distributed, first, an infant 15 months old, suffered with fever lasting 20 days, with a temperature of 104.2°; nose-bleed during the disease; abdominal distention; moderate rheumatic pain; characteristic stools; rose-eruption, at another abdomen and chest after the by an attack of pharyngitis. The urine showed a Phthisis is a disease Ehrlich's test. Cold-water very closely compared, reducing the temperature.

There was emaciation and some bronchial catarrh. A fairly clear infection through milk was demonstrated.

The second patient was 18 months old, and developed typhoid fever at a summer hotel. The duration was three weeks, and the only bad result was a mitral regurgitation.

The author has observed several cases of typhoid fever during the first year of life. There is a large number of undoubted cases at this age on record generally ignored by those who hold the theory that typhoid fever under five years of age is merely a medical curiosity.

Antipyrin in the Treatment of Children.—COMBY (*La France méd.*, Sept. 6, 1895)

Small doses of antipyrin, varying from 2 to 3 grn., are valuable in the treatment of chorea, and may be increased to 15 or 20 grn. (!) if the child is 6, 8, or 10 years old.

The author believes that antipyrin is practically harmless in diseases of children, and if the chorea is obstinate the dose may be increased up to 60 grn. a day.

In whooping-cough he often finds it necessary to give similarly large doses. In neuralgia he thinks it of great value, particularly about the period of puberty. It may be administered with caffeine in syrup or distilled water.

In the fevers of childhood it is safe and effective. Its antiseptic action causes it to be of value in diarrhea of early infancy.

[It should be remembered that the doses advocated by COMBY are larger than those sanctioned by experience in this country. Dosage should therefore be increased with caution.—Ed.]

The Treatment of Acute Articular Rheumatism.—(*L'Union méd.*, November, 1895)

Sodium salicylate should always be used as the nearest approach to a specific in acute articular rheumatism in children, preferably every two hours, in a massive dose flavored with syrup and diluted with several glasses of water. The author advocates also single large doses at night to avoid ringing in the ears and profuse sweats by the patient's going to sleep. Inactivity of the kidneys or serious ear disease is a contra-indication to the employment of large doses. Endocarditis or pericarditis is not.

An ointment composed of salicylic acid, lanolin, and turpentine, each 2½ dr., with lard 3 oz., may be rubbed into the affected joints with good results.

Pills composed of 2 grn. of salophen and ¾ grn. extract of gentian may be used as a substitute for salicylates.

The So-called Interstitial Cells of the Testis and Urethra.—W. MEISELS (*Gygyaszat*, 1894, No. 26; abstr. in *Monatssch. f. Geburtsh. u. Gyn.*, 1896, II, No. 1, p. 54)

The author reviews the literature of this subject and presents the histories of six cases which he has recently observed.

He distinguishes two groups, those acquired from mechanical causes and those originating from an inflammatory process. Cases of the first class are liable to return after being cured. Those of inflammatory origin are usually circular, and for the most part caused by gonorrhea.

The treatment is gradual dilatation, the same as for similar conditions in the male.

SOCIETY MEETINGS

NEW YORK ACADEMY OF MEDICINE

SECTION ON PEDIATRICS

April 9, 1896

WALTER LESTER CARR, M.D., Chairman

A Case of Rachitis.—Dr. HENRY DWIGHT CHAPIN exhibited a two-year-old baby who was typically rachitic. The child had been nursed for eleven months, and had been fairly well fed since then, but it lived in a dark and overcrowded room, and to this he attributed the development of the rachitis. There were marked sinking-in of the walls of the thorax, prominence of the epiphyses at the wrists, marked antero-posterior curvature of the vertebral column, and the characteristically prominent abdomen. The child had never been able to stand.

Dr. A. JACOBI called attention to the poor muscular development, a common condition in rachitis. The fact that in this case dentition had begun at seven months, and continued normally, showed that the development of the rachitis had been gradual. It did not follow, because a child had been nursed, that the mother's milk was of the right quality.

Complications and Differential Diagnosis of Rachitis.—Dr. A. JACOBI read a paper with this title. He said that rachitis first manifested itself with those bones which were growing most rapidly, *i.e.*, the cranial bones, and the rounding-off of the margins of these bones was an important diagnostic point in doubtful cases. Syphilis and rachitis were often confounded, and particularly the osteo-chondritis which developed in the epiphyseal junctions. To distinguish them, it should be remembered that the syphilitic variety developed generally about the fifth week of life, whereas the rachitic form developed later. For the pseudoleucemia which frequently complicates rachitis, phosphorus, arsenic, and hygienic measures were more beneficial than the administration of iron. In rachitis there was often a low blood-pressure, due to a small heart and large arteries, and this sluggish circulation was responsible for the condition of hyperemia, so prone to exist in such subjects. The rachitic malformation of the thorax favors insufficient lung expansion, and hence tends to the development of bronchial catarrh, and even of pulmonary tuberculosis. Nervous symptoms are common in rachitis. The insomnia, so often present, might be explained by the tendency to cerebral congestion when the child was in the recumbent posture. Among the more common complications are laryngismus stridulus, hydrocephalus, tetany, nystagmus, and spasmus nutans. It is now generally believed that laryngismus stridulus is ordinarily the result of cranial rachitis. The prognosis in rachitic hydrocephalus was by no means unfavorable, as many such subjects became in after-life excellent scholars. The ratio of the total weight of the muscles of the newly-born to that of children is 1 to 48, while that of the skeleton in the infant to that in the adult is 1 to 26. The feebleness of the infant's muscles, as intensified by rachitis, was perhaps best exemplified in the muscular insufficiency of the intestine, resulting in a most obstinate form of constipation. This should be differentiated carefully from the many varieties of infantile constipation. It could readily be differentiated from what the author had long ago described under the head of "congenital constipation," and which was due to an anatomical peculiarity of the sigmoid flexure, by the fact that this form of constipation, unlike that due to rachitis, began immediately after

birth. Rachitic infants often suffered from "growing pains," the result of over-exertion.

Dr. A. CAILLÉ, in discussing the paper, said that physicians who had to treat many children were almost constantly called upon to differentiate between rachitic muscular affections and other diseases. In a case seen that day, the appearance was that of a true "drop wrist," but further investigation revealed the existence of cranio-tabes and of a chest conformation characteristic of rachitis, and he was thus enabled to pronounce the case one of rachitic origin, and at the same time to give a favorable prognosis. It was very common for physicians to mistake the enlarged and painful epiphyses found in rachitic infants of three or four months for acute articular rheumatism. Another common error was to suppose that because a child presented a fat and chubby appearance this was sufficient ground for excluding rachitis. If in a given case one found cranio-tabes, occasional slight elevations of temperature, or general tenderness associated with constipation, one would be justified in strongly suspecting incipient rachitis. It should not be assumed that because a child was nursed, it received a proper supply of nourishment. The mother's milk should contain 3 per cent. of fat and from 1 to 3 per cent. of albuminoids, and if the albuminoids happened to be in excess of the fat it was highly probable that the child fed on this breast milk would become rachitic. It was also necessary to make a careful analysis of the breast milk in those cases in which the mother menstruates during lactation; and if it were found that this normal proportion of the ingredients did not obtain during the intermenstrual period, the physician would be justified in considering the advisability of directing that the child be weaned.

Dr. CHAPIN said that he had intended to say that in the case that he had presented the rachitis was *chiefly* due to the insanitary condition in which the child lived. A careful analysis of food would not in every instance determine the true nutritive value of this food. Incipient rachitis was very common here, even among the rich. An early sign of rickets was enlargement of the costo-chondral articulations; and sweating about the head, and a tendency to throw off the bedclothes, were early and valuable symptoms. Not only was it of importance to recognize rachitis in its incipiency, so that prompt treatment might be instituted, but a knowledge of the existence of rachitis often gave the physician an important clue in the treatment of many other infantile disorders.

Dr. FLOYD M. CRANDALL said that rachitic manifestations were sometimes confined to the thorax, sometimes to the cranium, and sometimes to other special regions of the body. A thorough examination of the whole body could alone enable the physician to say positively whether or not rachitis were present in a given case. It was specially important to recognize the fallacy of the old notion that rickets was due to a deficiency in the lime salts, and that its manifestations were confined to the osseous system. Treatment founded on this view would surely lead to disappointment. A deficiency of fat in the diet of the infant was a most common cause of rickets.

Dr. A. B. JUDSON called attention to the fact that in the child presented there was no deformity of the lower extremities, and this he attributed to the fact that, as it had not walked at all, the lower limbs had not been called upon to support the weight of the body.

The Chairman said that one of the most marked

cases of rachitis he had ever seen had been in an infant that had been fed on "modified milk."

Dr. JACOB, in closing the discussion, said that while sterilization, pasteurization, and "modification" had accomplished a great deal for infant-feeding, he had long recognized the fact that none of these methods was ideal. They diminished or prevented intestinal disorder, but did not supply all the elements of nutrition. He had found cranial rachitis particularly prone to occur in children fed on "modified milk." His practice for a long time had been to add cereals and animal broths to the milk, and he never allowed an infant to remain longer than three or four months exclusively on "modified milk." The feeding in the first few months of life was all-important, for upon this depended the whole future of the child.

MEDICAL ASSOCIATION OF GEORGIA

Forty-seventh Annual Meeting, held at Augusta, April 15, 16, and 17, 1896

The association met in the Richmond County Courthouse, and was called to order by the president, Dr. FRANK M. RIDLEY, of La Grange.

The "Address of Welcome" was delivered by Dr. EUGENE FOSTER, of Augusta, which was responded to by Dr. E. R. ANTHONY, of Griffin.

President RIDLEY then delivered his "Annual Address," in which he forcibly and eloquently dwelt upon several topics of interest to the profession.

The Treatment of Pneumonia.—Dr. W. J. MATHEWS, of Middleton, read a paper with this title. The author had never seen a case in his experience where he thought the symptoms warranted abortive treatment, owing to not seeing the patient until a few hours after the prodromic chill, the lung then being engorged to such an extent that he thought his efforts would prove futile. Having satisfied himself that he has a case of pneumonia to deal with, his first step is to make the patient comfortable. To meet this end he envelops the affected side with counter-irritation, preferably turpentine. To relieve restlessness, pyrexia, and pain, he gives phenacetin. Should phenacetin fail, he gives morphine hypodermically. To reduce hyperpyrexia he administers phenacetin in sufficient doses every three or four hours in connection with a stimulant, the purpose being to reduce the temperature to 101° or 102°. In his experience phenacetin does not, like some of the other coal-tar products, depress the heart. He advocates the application of blisters. He had never seen a case calling for venesection. To control the pulse he gives veratrum viride every three or four hours with whisky. The overworked heart should be closely watched, its action sustained, and clot prevented. This he does by digitalis and carbonate of ammonia. In the stage of resolution he resorts to supportive treatment. The type of which he had spoken was the acute lobar variety.

Dr. J. W. DUNCAN, of Atlanta, seldom blisters an adult. In the very initial stage a blister might do some good. He does not give the coal-tar preparations in pneumonia, for the reason that if they are given to reduce temperature they are liable to produce cyanosis. He frequently uses veratrum viride, and considers it a sheet-anchor in this disease.

Colles's Fracture was the title of a paper read by Dr. J. B. MORGAN, of Augusta. The most common and frequent fractures with which the general practitioner had to do was a Colles' fracture. The

diagnosis of this fracture is not difficult. The history of the accident, the characteristic deformity, pain, and seat of the lesion point at once to the nature of the fracture. Every case of Colles' fracture can be readily reduced by strong, forced dorsal flexion. This is best done under an anesthetic. The best temporary permanent dressing is Wyeth's modification of Pilcher's. The plaster-of-paris dressing is an excellent one, and is to be preferred in old people where there is firm impaction which the surgeon does not care to break up, or in cases where the fragments are more or less comminuted. It should be applied from the lower border of the metacarpus to the middle third of the forearm, with the patient's hand in the straight position. A straight dorsal splint may also be employed, but it is not as desirable as the plaster-of-paris. Under no circumstances use the angular, crooked, or pistol-shaped splint, and no form of splint should be allowed to project beyond the metacarpus. The fingers must remain freely movable, to prevent stiffness of the joint. Limited motion should be encouraged at first; later, active and free. In aged patients, where we have more or less impaction of the broken ends, reduction should not be attempted, as it is better to have a crooked, deformed wrist than a failure in bony union, and impaction favors the consolidation of the fractured bone.

Life-Insurance Urinalysis.—Dr. W. L. CHAMPION, of Atlanta, contributed a paper on "The Importance of Careful Chemical and Microscopical Examination of Urine in Applicants for Life Insurance."

Within the past few weeks the author had examined patients with kidney lesions, who a few days or weeks previously had applied for life insurance, and had been recommended as good risks. Every medical examiner, after due deliberation, ought to be able, after making a thorough physical examination, having considered the applicant's predisposition to any disease, and last, but not least, having made a thorough chemical and, if necessary, microscopical examination of the urine, to tell the life expectancy of the applicant before him. Cases were cited by the author to demonstrate that a great many practitioners are too prone to overlook the condition of the kidneys, not to make a careful and thorough examination of the urine, not only in examining applicants for insurance; but their desire to formulate a correct diagnosis in diseased conditions should make it so. He urged the extension of chemical and microscopical investigations in this line of work.

Dr. A. W. STIRLING, of Atlanta, in the discussion called attention to some experiments which he had made some years ago, and which formed the basis of a graduation thesis to the University of Edinburgh. Chiefly through the observations of PAVY, JOHNSON, and others it was becoming known that every phase of albuminuria was not a cause of Bright's disease. In order to ascertain the actual number of persons in whom albuminuria was present in health, he examined 369 boys between the ages of 12 and 16, who belonged to one of the large training-ships on the Thames, near London. In order not to make a mistake in regard to the presence of albumin, he examined each one with four different reagents. He found albumin most common three hours after the boys got out of bed and assumed the erect posture, when the percentage was by examination 20.8 per cent. Of the boys that played in a band the percentage of albumin was about 60 per cent., while in those that did not play in the band it was only 12.8 per cent. Mr. STICHEL, of Paris, had seen blindness produced by the playing

of wind instruments—due, he says, to passive cerebral congestion with a similar condition of the retina and choroid.

Dr. STIRLING said that the urine is usually found to be absolutely free from albumin while the patient remains in bed, and it makes its appearance within a variable, but generally short, time after the assumption of the erect posture, and independently of food and all other conditions. The albumin continues in the urine for only an hour or two, or perhaps in varying quantity throughout the day, but as a rule it is disappearing in the afternoon and is entirely gone by bedtime. The ingestion of food has little effect in producing the albumin, and it is not breakfast which causes its frequency of appearance in the morning. Sometimes he had seen a slight rise after a meal, but this is trivial and by no means constant. He had boys brought ashore to the infirmary and confined to bed, and then albumin was absent from the urine until they got up, breakfast or other meals having no effect. He had made very many and various experiments in connection with this subject, all tending to prove the same thing.

He examined 92 other cases whose ages varied from 5 to 94, with the result that there was an increase in the percentage of people having albuminuria with advancing years. From 20 to 30 years he found the percentage of albumin to be only 10 per cent.; 30 to 40, 25 per cent.; 40 to 50, 36.4 per cent.; 50 to 60, 66.6 per cent.; 60 to 70, 75 per cent.; 70 to 80, 75 per cent.; 80 to 90, 83 per cent. These observations were confirmed by GRAINGER STEWART.

With regard to the advisability of insuring cases of cyclic albuminuria, he would suggest that in the present state of our knowledge the most satisfactory method of dealing would be for the companies to accept an apparently healthy albuminuric at a high premium, agreeing to rearrange this on their being satisfied of the disappearance of the albumin for such a length of time as would give reasonable expectation of this being permanent.

The Modern Treatment of Skin Diseases.—Dr. BERNARD WOLFF, of Atlanta, read a paper on this subject, in which he outlined in a succinct manner the progress that has been made in the province of dermatology within the last twenty years. The remedies selected for use in cases of disease of the skin can be employed in several ways—namely, lotions or washes, ointments, pastes, plasters, and soaks, as well as baths. Baths are of two kinds, the vapor and the simple medicated bath made to resemble the natural mineral waters. The chief purpose of the bath is, besides cleanliness, to bring about healthy activity of the skin, to remove scales, soften infiltrated areas, increase the elimination of waste products through the skin, and to relieve irritable conditions of the skin. Baths are especially valuable in the treatment of parasitic and syphilitic affections of the skin. Ointments and pastes are more frequently used than any other form of preparation in the therapy of skin diseases. The base of an ointment is a matter of importance, for upon it largely depends the benefit to be derived from the medicament. Formerly only lard and wax were used; now we have a greater number of articles to choose from. Of these vaselin, lanolin, adeps lanæ, and resorbin are the most useful. LEDERMANN has introduced a new excipient called resorbin. It is composed of refined almond oil, emulsified with distilled water, with the addition of a small quantity of yellow wax and lanolin. The author's experience with casein ointment leads him to regard it as being incompatible with too

many substances to be of much practical value.

The use of soaps is of some importance in the treatment of diseases of the skin. Only neutral soaps, or those containing an excess of unsaponified fat, are to be recommended. Free alkali is destructive to the protective horny layer of the skin. The over-fatty soaps make commendable vehicles for various medicaments, the most frequently used of which are hydronaphtol, resorcin, sulphur, tar, corrosive sublimate. The use of soaps has the effect of encouraging cleanliness on the part of the patient, and cleanliness is one of the prerequisites of successful treatment.

The removal by electrolysis of nævi, moles, warts, and small malignant new growths of the skin is a well-established surgical procedure.

Dr. M. B. HUTCHINS, of Atlanta, said the modern treatment of skin diseases should embrace internal as well as local or external treatment. The patient's constitution should not be overlooked, although if he had to choose between local and internal treatment he should prefer the former in the treatment of 99 per cent. of the cases of affections of the skin. He had not given the plaster-mulls of UNNA much trial. They had been objected to on account of containing a gutta-percha base, and in any event the dermatologist would have to carefully select the cases in which to use them. With reference to soaps, such as the bichloride of mercury, the chemical change which takes place renders the remedy inert, and it is almost impossible to get any absorption through the unbroken epidermis. Success in the treatment of syphilis by mercurial inunctions is attained, not by the absorption of the mercury through the skin, but by inhalation of the vapors from the mercurial ointment.

As regards gelatin paste he had used it a little, but thought it was objectionable because it stuck to everything with which it came in contact, particularly woolen goods.

In some cases of acne on the faces of young ladies he had obtained beneficial results by using the constant galvanic current to the cheeks where the eruption appeared. The stimulating action which takes place encourages the glands to throw off secretions without allowing them to remain sluggish and thus block up the follicles of the skin.

Appendicitis.—A paper on this subject was read by Dr. SAMUEL LLOYD, of New York city. It was largely statistical. In making his compilation the author began with the very earliest recorded cases, and it covers a greater number of medical than surgical cases. The total number examined up to April 5, 1896, was 558, and the result was that 263 recovered and 295 died. Of this number 226 were operated upon, 192 recovered, and 34 died. On the other hand, in direct contrast to this, 265 cases were treated conservatively, 60 recovered, while 205 died.

A case was cited which the author had seen in consultation, illustrating the course of extraperitoneal abscesses.

According to the table of cases that the author had examined, the pathological conditions could be summed up as follows:

1. Cases in which the disease follows traumatism.
2. Cases following septic inflammations in other parts of the body, such as salpingitis in the female, post-partum septic inflammation of the uterus, typhoid fever, tuberculosis.
3. Direct infection of the mucous membrane of the appendix by its contained bacteria.
4. Alterations in its position and shape so as to occlude its lumen, preventing the escape of its

natural secretions and contained intestinal contents.

5. Changes in its position and pressure upon its mesentery by growths, or impacted feces in the cecum.

6. Alterations in its position or shape so as to shut off its blood-supply.

7. Foreign bodies, including fecal concretions.

There was one other pathological condition about which the author could obtain no information from the cases tabulated, namely, the abdominal tonsil, referred to by SUTHERLAND, ROBINSON, BURNEY YEO, HAIGH, and BLAND SUTTON.

It is probable that, in the present state of surgical knowledge, the majority of medical men are in favor of surgical intervention in cases tending toward general peritonitis, even though the symptoms do not point to perforation or abscess formation, in the hope that drainage of the abdominal cavity and the removal of the focus of disease may enable the surgeon to forestall what would otherwise be a fatal complication.

Of 445 cases out of 558 that were examined, 79 per cent. resulted in abscess, perforation, peritonitis, etc.

The following table gives the full data:

Perforation, without given cause . . .	11
With abscess	10
With ulceration	16
With peritonitis	32
With concretion or foreign body . . .	41
With gangrene	7
With gangrene and concretion . . .	19
With inflammation	13
With hardened feces	1
With concretion and peritonitis . . .	24
With foreign body and peritonitis . . .	7
	—181

ABSCESS WITHOUT PERFORATION

Uncomplicated	136
Containing concretion	19
With perforation	2
Sloughing appendix	2
Foreign body	1
	—160

Foreign bodies	36
Fecal concretions	26
Inflammation of the appendix . . .	8
Enteroliths	2
Gangrene of the appendix	9
Gangrenous appendix with concretion .	2
Inflammation with concretion	3
	—86

GENERAL PERITONITIS

With concretion	5
Foreign body and gangrenous appendix	1
Foreign body	3
Ulceration	1
	—10

Total 437

It will be noticed that this is a dismal showing for the conservative treatment of appendicitis. The author believes that no case of appendicitis should ever be considered as purely medical. When one is called to a patient it is his duty to immediately prepare for operative interference. He would advise operation in every case, after studying the subject carefully, where the symptoms showed any tendency to increase. If a tumor was present and the symptoms suggested the possibility of the presence of pus, he would surely operate.

Dr. E. H. RICHARDSON, of Atlanta, followed with a paper on "The Medical Side of Appendicitis." He cited the opinions of eminent practitioners both in this country and in Europe in favor of non-operative interference in a large proportion of cases.

Dr. W. H. ELLIOTT, of Savannah, said the foremost difficulty in cases of appendicitis was to know when and when not to cut. No man was fit to

treat appendicitis who was not absolutely willing, at any moment that he might be needed, to open the abdominal cavity.

Dr. WILLIS F. WESTMORELAND, of Atlanta, was quite sure that in every case of relapsing appendicitis he had seen there were adhesions from previous attacks. Some of these cases had died. If they had been operated on in the primary attack, the chances would have been better for their recovery. He would open the abdomen as soon as appendicitis was diagnosed, if the patient would permit it.

Dr. JAMES A. WRIGHT, of Augusta, considered the operation for this disease very difficult, for the reason that no two cases were alike. It was an easy matter to cut down, but if pus and adhesions were found around the appendix the operation was extremely difficult.

Dr. J. W. DUNCAN, of Atlanta, had seen and treated medicinally several cases of appendicitis during 30 years' practice, one of them having died from a recurrent attack a few months after the primary one. He was satisfied that many cases operated upon were nothing but typhoid fever, and that other cases thought to be typhoid fever were really appendicitis.

Dr. J. B. S. HOLMES, of Atlanta, considers the disease a surgical one, and thinks it is safer to operate as soon as a diagnosis is made. The only cases he had lost were those that had been treated medicinally from two to four days previous to operative interference. If an early operation is performed, the mortality should be small.

Dr. WM. H. DOUGHTY, of Augusta, maintained that it was not prudent to operate upon every case of the disease as soon as the diagnosis was made, for the reason that the surgeon does not always see the cases in their incipency. If he did, it would be safe to remove the appendix, as the chances were that at this time there would not be pus formation; in other words, the surgeon would have a comparatively clean condition within the abdominal cavity, and the mortality of operations done under these circumstances ought to be small.

Dr. M. L. BOYD, of Savannah, took the position that if all cases could be diagnosed early, it would be wise to operate at once.

Dr. GEORGE H. NOBLE, of Atlanta, thought it was extremely unfortunate that the general practitioner should view appendicitis from a prejudiced standpoint. There were undoubtedly many cases of the catarrhal form that were relieved temporarily or cured by purgation, possibly permanently. Where we have rupture and the discharge of the contents of the appendix into the peritoneal cavity, we have the fulminant form of the disease, and in such cases very prompt and active measures must be instituted. He advocated early operation.

Dr. L. G. HARDMAN, of Harmony Grove, said that while there were cases of appendicitis calling for the services of the surgeon, there were others that could be treated successfully by medicinal measures. Of 15 cases which had come under his care, only two were operated upon. All recovered, both the operative and non-operative cases. In the cases operated on suppuration had occurred, and one of the patients, a physician, was present.

Some Albuminuric Complications of Pregnancy.—A paper on this subject was read by Dr. HOWARD J. WILLIAMS, of Macon. He said this complication was present in from 6 to 50 per cent. of all pregnancies. On the other hand, puerperal eclampsia was comparatively rare. From January 1, 1891, to March 31, 1896, he had encountered 10 cases of albuminuria or toxemia in 163 pregnancies,

and two cases of eclampsia in this number—10 cases. This gives 6 per cent. of toxemia and about 1 per cent. for eclampsia. The percentage given is based upon accurate analyses of the urine of every woman he had attended during the time mentioned. Albuminuria may be present in varying degrees, from a mere trace to a very large per cent., the urea and other excreta accumulating in the blood in the same proportion. The toxemia is slow or rapid, according to the degree of retention of the latter from the outside. These variations were shown by the recital of three cases.

The cardinal indications are to promote elimination of the toxic materials circulating in the blood and to restore the excretory organs to their normal functions. If, however, the poisoning is excessive and the life of the mother and the fetus is at stake, then the indication is to promptly empty the uterus.

Elimination is pre-eminently indicated for all forms of kidney disease, and in this complication it yields the best results. But if it cannot be tolerated, or disagrees, a more liberal diet should be given, such as the white meats of fowls, fish, oysters, fresh fruits, and good nutritious breads. Remedies to promote elimination by the kidneys were then dwelt upon. Nervous excitement should be controlled by sedatives and narcotics, though not to the extent of interfering with eliminative measures. Elimination of the waste products having failed to restore the functions of the excretory organs and the condition being urgent, eclampsia being imminent or other complications alarming, the uterus should then be emptied.

Higher Medical Education.—Dr. R. B. BARON, of Macon, delivered the "Orator's Address." He dwelt upon and pleaded for higher medical education. Relative to practicing medicine purely for money, he said that money with the true physician was of secondary consideration; that the real incentive for the best work with those practitioners who achieve success was that broad humanitarianism which impelled with resistless force the commissioned agents of God Almighty to relieve suffering, to stay the pangs of agonizing pain, to fight to the bitter end humanity's implacable and unconquerable enemy—death—regardless of any other consideration.

The After-treatment of Tracheotomy Cases of Membranous Croup was the title of a paper read by Dr. R. M. HARBIN, of Rome, in which he drew the following conclusions:

1. Croup, whether diphtheritic or membranous, is almost invariably fatal without surgical treatment, and the few cases that recover by medicinal treatment alone are not to be considered.
2. So far as the practical indications for tracheotomy are concerned, it makes no difference whether croup be diphtheritic or membranous.
3. Tracheotomy has the advantage over intubation, in that it gives a better means of expectorating the membranes and furnishes free drainage from the site of septic infection.
4. Tracheotomy is a justifiable surgical procedure and should be performed in all cases where our therapeutic resources have been exhausted, and where the patient is in imminent danger of suffocation. It should be done in hopeless cases, since it either offers a chance for the patient or promotes euthanasia.
5. Tracheotomy keeps the patient alive until the pseudo-membrane disintegrates and resolves into a muco-purulent liquid and is expectorated through the tube.
6. The after-treatment is the most important part

of the procedure, and the author attributes the successful results reported to the persistent use of lime-water.

Dr. J. B. S. HOLMES, of Atlanta, reported several interesting surgical cases.

A Case of Enormous Ventral Hernia Cured by a Plastic or Flap Operation.—Dr. GEORGE H. NOBLE, of Atlanta. The subject was a very large woman who came to him from a neighboring State, giving a meager history, saying that the protrusion first appeared after severe straining, and grew rapidly until it reached the size of an adult head. The treatment she had received consisted in local applications only, no attempt at operative measures having been made. The case is of considerable interest on account of such a large hernia in this region, and because the expansion of the ribs prevented closure of the ring by approximation of its margins, necessitating, therefore, a plastic or flap operation to close the aperture, which was large enough to pass a closed hand through without resistance.

The operation consisted of: (1) In trimming away the excess of the sac and uniting the peritoneum with buried catgut sutures. (2) Four strong tension sutures were passed through the abdominal walls, piercing the semilunar lines down to the peritoneum, but not implicating it. (3) The semilunar flap was carefully outlined upon either side over the recti muscles with a straight or vertical side upon their outer margins and the convexed borders turned toward and extending to the hernial ring. The aponeurosis of the external oblique and the outer layer of that belonging to the internal oblique muscles were cut through and the flaps liberated, except where their bases joined the ring and turned over the opening, accurately abutting the edges, in which position they were stitched with buried silk sutures. The convexed borders coincided with the margins of the ring to which they were made fast. (4) The recti muscles were brought in direct apposition by surrounding them with the large catgut, thus adding another layer of strong tissue over the hernial opening. (5) The skin and fatty tissue were then brought together and the tension sutures tied over all, the wound dressed antiseptically, with firm pad, roller bandages, etc. The wound proved entirely aseptic, and the result was very gratifying.

In another such case the reader would use buried silver sutures instead of absorbable materials.

Treatment of Skin Disfigurements by Electrolysis.—Dr. M. B. HUTCHINS, of Atlanta, read a paper on this subject. That electrolysis has a wide application and a legitimate use, he was convinced by his own experience during the past five or six years. To do the work outlined in the paper a few galvanic cells, a sponge electrode, a needle-holder, and, for accurate work, a milliampèremeter are necessary. In most cases the needle should be attached to the negative pole. The current used is weak, and varies from three to seven or eight cells. With a milliampèremeter it is found that we get from one to five milliampères from this current to the relative position of the electrodes, the greater amount of intervening tissue reducing the current by resistance, a lesser interval increasing it. The number of needles used, the manner of grasping the sponge electrode, the wetness of the sponge—all influence the strength of the current. The strength of current used in these operations is harmless to the patient and would not be felt upon the unbroken epidermis.

For the removal of superfluous hairs on the face of ladies, electrolysis was the only method. Many of the patent hair-removers were excellent stimu-

lants to its growth. A lounge, good eyes, a good light, a steady hand, and perseverance were necessary. Dr. HUTCHINS had never seen any injury result from the treatment of moles by electrolysis. He had removed one by excision which had become epitheliomatous through a razor-cut. There was no recurrence. Moles with hairs in them will frequently disappear from the simple effect of the current used in destroying the hairs, but destroying the mole does not always destroy its hairs, as they are deeper.

Warts of various kinds, so tedious of treatment with the old methods, save that of excision, with or without cauterization, usually dissolve into froth under the action of electrolysis, being more easily destroyed than the average mole. The author then dwelt upon electrolysis in the treatment of epithelioma, small fibromata, milia, sebaceous cysts, keloids and hypertrophic scars, comedone, angiokeratoma, etc.

The paper was based, almost entirely, upon the author's own practical experience, and his implicit faith in this method of treatment is due both to results in practice and upon himself.

Dr. M. L. BOYD, of Savannah, followed with a report of a few interesting surgical and gynecological cases.

Subconjunctival Injections of Mercury in Certain Eye Diseases.—Dr. DUNBAR ROY, of Atlanta. In this paper the author tabulated 25 cases of various eye affections, and his experience leads him to the following conclusions: (1) In infected processes of the cornea, ulcers, abscesses, wounds, etc., this method of treatment is quicker, and therefore more satisfactory for clinical purposes, than those usually employed. (2) In acute iritis it does not seem to exert any beneficial influence, but produces great pain, while in other cases the pain is mitigated. (3) In chronic iritis and iridocyclitis the pain and congestion are often markedly influenced for the better, but it has no effect whatever upon adhesions of the iris to the lens of the capsule. (4) In post-operative infection and panophthalmitis it is by far the best method to which we may resort for good results. (5) In pannus of the cornea absolutely no effect was produced one way or the other. (6) With lesions of the choroid and other deeper structures of the eye he had had no experience, but expects to try this method whenever a case presents itself. From his personal experience he would unhesitatingly say that we cannot depend upon subconjunctival treatment alone, but as an adjuvant it is most excellent, and in some cases produces results far more beneficial than were expected.

Glaucoma in Relation to General Practice.—Dr. A. W. STIRLING, of Atlanta, read a paper on this subject. He said that glaucoma was to the ophthalmic specialist one of the most interesting of diseases, comprising 1 per cent. of all ophthalmic troubles. While he believes that every case of the disease requires the most skillful advice that can be obtained, still it is the first and foremost affection which comes within the province of the general practitioner, and with him lies frequently the ultimate safety or destruction of the eye involved. The reader reported several interesting cases, after which he dwelt upon the variability in tension. Coming to the treatment he counseled against the indiscriminate use of mydriatics, especially atropin, scopolamin, and cocaine in affections of the eye. Glaucoma had often resulted from the use of these agents, and is almost always accentuated by them. In most ocular diseases they are harmful, and the general practitioner would do well to remove them from his list in ophthalmic practice,

except when he knows he is dealing with an uncomplicated keratitis or an inflammation of the iris. On the other hand, in myotics, and notably in eserine and pilocarpine, we have a fairly certain means of temporarily benefiting many cases of glaucoma and of saving valuable time till the most suitable method of treatment can be decided on.

New Officers.—The following officers were elected: President, Dr. GEO. H. NOBLE, Atlanta; first vice-president, Dr. J. B. MORGAN, Augusta; second vice-president, Dr. R. B. BARRON, Macon; secretary, Dr. R. H. TAYLOR, Griffin; treasurer, Dr. E. C. GOODRICH, Augusta. Place of the next meeting will be Macon, in 1897.

AMERICAN LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL SOCIETY

Second Annual Meeting, held in New York City, April 17 and 18, 1896

EDWARD BRADFORD DENCH, M.D., of New York, President

FIRST DAY, April 17

The Diagnostic Value of Ophthalmoscopic Examination in Cerebral Disease Depending upon Affections of the Ear.—Dr. THOMAS R. POOLEY, in a paper on this subject, after citing several recorded cases in support of the view that ophthalmoscopic examinations were an aid to the diagnosis of certain disorders of the ear, drew the following conclusions: (1) That the ophthalmoscope was valuable in arriving at a diagnosis of cerebral disease, in some instances, by confirming the evidence given by other symptoms; in others, by giving the principal, if not the only, reliable evidence of brain disease. (2) That the intra-ocular end of the nerve is never inflamed where the disease remains limited to the middle ear and mastoid, and that, therefore, if optic neuritis is found, the diagnosis of extension to the brain is certain, whether or not there are other evidences of this condition. (3) That the form of optic neuritis is always that seen in affections of the brain, viz., choked disk. In his opinion, the various forms of neuritis described are only different grades of this particular form of optic neuritis. (4) That it occurs more frequently in chronic purulent otitis media than in acute cases. In the latter it is rare. (5) That the list of brain lesions in which optic neuritis is observed embraces nearly all the usual lesions—abscess of the brain, meningitis, and sinus thrombosis. (6) That the occurrence of optic neuritis in otitis media chronica, with implication of the mastoid, and a history of long-standing otorrhea, are, by inference, evidence that the trouble is due to a cerebral abscess. (7) That the extent to which the presence of slight edema of the optic disk should influence us in determining the advisability of operating on the mastoid is still an open question, but he thought we might accept the conclusion of Dr. ANDREWS, that as the operation when properly performed is not dangerous, we may look upon edema of the optic disk as an indication for opening the mastoid, with the object of at least establishing free drainage from the middle ear. (8) That the existence of optic neuritis as an indication for a more serious operation, such as exploration of the brain for intracranial disease, could only be considered in connection with other symptoms. So far as it went, however, this condition made the presence of intracranial disease more certain.

Dr. J. HERBERT CLAIRBORNE, of New York, said that it seemed to him that optic neuritis could hardly

be a reliable guide to the best time to allow the wound to close, as the author of the paper seemed to think. The ordinary guide in practice should be whether or not the wound was healing properly from the bottom. He doubted whether optic neuritis would prove to be a trustworthy guide to the necessity for operating on the mastoid.

Dr. POOLEY said that the percentage of cases in which the eye was affected in connection with purulent middle-ear disease had not yet been determined, but he felt sure that optic neuritis would be found much more frequently if physicians would take the trouble to look for it.

A Case of Unusual Speech Defect.—Dr. G. HUDSON MAKUEN, of Philadelphia, presented a young law student, who had a marked retraction of the lower jaw, which destroyed the character of the labial sounds. This could only be overcome, he said, by long practice in protruding the lower jaw when speaking. The soft palate was much relaxed, and had been impeded in its action by the existence of adenoid growths. In trying to say "s," instead of the palate rising to the roof of the mouth, it remained down on the tongue. He considered the adenoid thickening in the pharynx as the original cause of the defect in the speech. The patient had received careful instruction as to the best method of overcoming the difficulty of speech, and he demonstrated clearly the marked improvement that had already resulted from persistent practice along this line.

Viewing the Vibrations of the Vocal Cords.—Dr. H. HOLBROOK CURTIS, of New York, exhibited the instrument of Professor OERTEL, of Munich, for demonstrating the action of the vocal cords in singing. It was ingeniously constructed on the principle of the "siren," and by its aid the observer could demonstrate that the vocal cords were thrown into vibrating segments. An interesting practical point in connection with the use of this instrument was, that it had been found, in persons who were unable to sing properly owing to the existence of "nodules of attrition," that by the singing of certain notes according to a different method the cords could be made to vibrate in a slightly different manner, and thus this very troublesome condition could often be entirely relieved in a comparatively short time.

Otitis Media Suppurativa, with Unusual Perforation of Mastoid.—Dr. E. E. HOLT, of Portland, Me., read a paper with this title. After describing an illustrative case he referred to the too common practice of dismissing a patient with the simple direction to frequently syringe out the ear. If such a case could not be kept under constant medical supervision, he believed it was a much safer practice to direct the person to simply place a little plug of cotton lightly in the ear, and avoid syringing altogether.

The President said that he had recently seen one of these cases in which opening took place into the digastric fossa. As to syringing, his own experience had been that patients were more apt to infect the canal by plugging with cotton than if they abstained from all treatment of the ear. One of the patient's family could usually be instructed so as to qualify him to properly syringe out the ear.

Laryngeal Vertigo.—Dr. A. C. GETCHELL, of Worcester, Mass., said that he had succeeded in collecting 41 cases of laryngeal vertigo. In 32 of these cases it was expressly stated that there had been loss of consciousness, and in 26, the patient fell. True vertigo was mentioned but once. In by far the larger number the attack followed a more or less severe spell of coughing. The name "laryn-

geal vertigo," given to this disorder by CHARCOT, when he first described it, was far from giving a correct notion of the affection. One theory as to its causation was that it was a manifestation of epilepsy, but its common appearance for the first time in adult life, would seem to negative this view. Another theory was that it was due to forced expiration, but if this were the case, one would expect to observe in all cases a marked disturbance of the circulation, which was not the fact. It should be said that a history of epileptic seizures in these patients was not infrequent. Our present knowledge of this disorder justified the following conclusions: (1) that it occurs in persons in whom there is an unstable nervous equilibrium; (2) that there exists some condition of the upper air-passages which predisposes to glottic spasm; and (3) that a severe paroxysm of coughing may cause syncope, but only when there is an existing disorder of the central nervous system.

Dr. SARGENT F. SNOW, of Syracuse, referred to a case of laryngeal vertigo which he had seen in the person of a laborer, 24 years of age. This man would completely lose consciousness for nearly half a minute at a time, and during his first examination of this patient's larynx, he had five or six attacks. He had been previously under the care of his family physician, who had been giving him the bromides without benefit. This medication was stopped, and under measures directed toward controlling the congestion of his larynx, all his laryngeal symptoms speedily disappeared.

Dr. WENDELL C. PHILLIPS, of New York, said that in the only case of laryngeal vertigo that he had seen there was also a well-marked chronic bronchitis and a bronchorrhea. He had found that treatment of the bronchitis had done the most toward relieving him of the laryngeal vertigo.

Dr. ROBERT C. MYLES, of New York, said he had seen this disorder in a man of 50 years, who lived rather high. By restricting his diet, and using local treatment to the larynx, a cure had been effected.

Deviation of the Nasal Septum; Operation.—Dr. W. C. PHILLIPS presented a boy on whom he had operated for the relief of an almost complete occlusion of both nostrils. The operation had been done four weeks ago, and had consisted in breaking up the septum completely with the Adams forceps, and then inserting the perforated cork splints devised by Dr. T. PASSMORE BERENS. These had to-day been removed permanently. He considered the result quite satisfactory.

Dr. C. W. RICHARDSON, of Washington, D. C., said that since he had used the perforated splints of Dr. BERENS, his percentage of good results had been much higher than formerly.

Dr. DWIGHT L. HUBBARD, of New York, said that one should not be in a hurry to remove these cork splints. He had found that relapse sometimes occurred even after they had been allowed to remain in for four weeks, but this had never occurred in his experience in cases in which the splints had been left for six weeks.

Dr. H. HOLBROOK CURTIS expressed the belief that this splint was the most scientific and useful that had been devised for this class of cases.

Dr. PHILLIPS, in closing the discussion, said that he had observed ulceration follow the too prolonged use of two of these splints.

Case of Hemorrhage from the External Auditory Canal.—Dr. C. W. RICHARDSON, of Washington, D. C., reported a puzzling case of hemorrhage from the external auditory canal, occurring in a woman, 36 years of age. The hemorrhage usually lasted for a day or two, and recurred at intervals of

a week or more, although after a time the hemorrhages became much more frequent. It had apparently nothing to do with the menses. Examination showed no solution of continuity. Although he had had the case under observation for several months, he had seen no reason to believe that the patient was hysterical, or was shamming, and he had been unable to detect the source or origin of the hemorrhage.

Dr. POOLEY referred to a case of hemorrhage from the auditory meatus which had seemed rather mysterious for a time. It was finally found that the blood issued from a perforation in the drum, and further examination revealed petechial hemorrhages in various parts of the body, and the usual symptoms and signs of scurvy. The child died shortly afterward, and the autopsy confirmed the diagnosis of scurvy.

Dr. RICHARDSON said that there were no signs of scurvy in his patient, and the examination of the blood had been negative.

Case of Actinomycosis Bovis.—Dr. R. C. MYLES exhibited a case of this kind, and remarked that in several other similar cases he had effected a cure by extirpation of the growths.

Hysterical Affections of the Mastoid.—Dr. J. E. SHEPPARD, of Brooklyn, in a paper on this subject, reported three illustrative cases occurring in his practice. In the first patient, a girl of 18, there was a history of deafness for three years. Firm pressure over the mastoid failed to elicit pain, and she was cured in a few days by the administration of bromide of sodium. The second patient, a woman of 21, gave a history of a severe fall, and of subsequent dizziness with tenderness and pain about the ear. The mastoid region appeared to be painful, but there was no edema. She was cured by two sances of partial hypnosis. The third case was also a young woman, and examination of the ear failing to show sufficient cause for her condition, her attending physician was advised to try the effect of "suggestion." The final outcome of the case he had not been able to ascertain.

Dr. RICHARDSON said that at one time he had operated upon a case of this kind. The pain and tenderness had been so marked, that in spite of the absence of edema and redness—which it was well known were not always present in true mastoid disease—he had been led to operate. The mastoid cells were found perfectly healthy. The patient promptly recovered after operation.

Dr. PHILLIPS recalled a case of furunculosis of the canal, associated with tenderness in the mastoid, in which it had been discovered that the young woman had been causing irritation of the parts by introducing sharp substances, such as fragments of pins and of finger-nails.

Dr. J. E. NICHOLS, of New York, referred to a case in which apparently the ear symptoms had been produced by similar irritation of the canal. A proposal to operate had effected a cure.

THE PRESIDENT said that in making the diagnosis in these obscure cases, one should remember that these patients usually complained of tenderness on both sides.

SECOND DAY, April 18

Pharyngeal Tuberculosis.—Dr. ROBERT LEVY, of Denver, said that his records showed that pharyngeal tuberculosis occurred in about one and a half per cent. of all cases of phthisis, and that there were two sources of infection, viz.: (a) a local attack on an abnormal mucous surface; and (b) through the lymph channels. The severity of the symptoms

were modified very greatly by the site of the lesion, and by the existence of laryngeal or pulmonary tuberculosis, or by the co-existence of syphilis. The last was the most important modifying factor. The finding of tubercle bacilli, the condition of the lungs and the results of treatment would enable one to establish the diagnosis. Solutions of nitrate of silver, 40 grn. to the ounce, were useful in the early stage. Curettement and applications of lactic acid had yielded fair results in his hands, but the galvanocautery had proved superior to them all. Where there was syphilis also, his experience had been in favor of small doses of mercury rather than of iodide of potassium. His experience with the disease in Colorado had convinced him that the climate of that State was unfavorable to those suffering from pharyngeal tuberculosis.

Diseases and Treatment of the Nasal Accessory Sinuses.—Dr. ROBERT C. MYLES exhibited some photographs in illustration of what could be learned from transillumination of the antrum and adjacent cavities. These had been taken as long ago as 1890, and, in his opinion, would compare very favorably with the more recent photographs taken with the X-rays. Speaking of disease of the accessory sinuses, Dr. MYLES said that he had come to the conclusion that the nose and teeth were about equally responsible for the production of antrum disease. The simple irrigation-tube and small trocar and cannula he considered invaluable aids to diagnosis. In all acute and subacute cases it was proper to try expectant and exploratory methods of treatment. In cases of antral disease exploration was carried out by simple irrigation through an opening between the first and second molars. As he had known of one fatal case in which death might have been averted had the patient consented to early operation, he had made it a rule to operate externally in frontal-sinus disease when the symptoms were urgent and had not been controlled by other methods. In extreme cases of polypoid disease the ethmoid is rather brittle; in suppurative cases it is almost of flinty hardness. It was his practice after removing the bone to drill or gouge an opening into the cells, and cut away as much of the cells as possible. The sphenoid cells were not as difficult to open as many might suppose. The cells were about one to one inch and a half in depth. He did not agree with the general surgeons that the antrum of Highmore should be treated as are other diseased cavities. Curetting often aggravated rather than helped the condition. Where the tooth appears to be the source of the trouble he would advise removal of the tooth and penetration of the socket into the antrum. This method was so simple and harmless that it should be made a part of the expectant treatment.

Dr. W. C. PHILLIPS said that in his opinion inflammation of the antrum was not an infrequent affection, but that suppurative inflammation was more rare. Some observers claimed that transillumination was unsatisfactory as an aid to diagnosis, but this was because it was not properly performed. The source of illumination should be placed in the mouth, and the observer should note the character of the illuminated area beneath the eye. While it was a useful aid, it was not sufficient ground in itself for a positive diagnosis of antrum disease. Sometimes he had found that percussion over the antrum would elicit tenderness on the diseased side. Recently, while operating on the cadaver of a colored person, he had been surprised at the extreme smallness of the sinus.

Dr. G. HUDSON MAKUEN reported a case of unusual alveolar abscess, with antral complications.

He said that his experience had been that when a large opening was made at the floor of the antrum, there would not be good drainage through this opening unless there was some obstruction at the natural opening. He suspected that the respiratory movements were the cause of drainage taking place in this way against the action of gravity.

Dr. EWING W. DAY, of Pittsburg, said that he had observed in quite a number of cases a shadow on both sides with transillumination, and that in other cases there would be a shadow on only one side, but no other indication of disease of the antrum. He had therefore come to look with suspicion on transillumination as a diagnostic resource.

Dr. MYLES, in closing the discussion, said that colored people often had no frontal sinus, or only a very small one. It was therefore easy in such subjects to make an opening directly into the cranial cavity. His experience had been that fluid drained as well through the artificial opening as through the natural passage. Most of the nasal cavities appeared to drain in a rhythmic way, as a result of the movements of respiration. Regarding transillumination, he said that with very many persons transillumination would show a dark area beneath the eyes, but in almost any case the shadow could be made to disappear by using a sufficiently strong light. With all its manifest shortcomings, transillumination was still a valuable aid to diagnosis.

Acute Otitis Media as a Complication of Typhoid Fever.—Dr. D. A. HENGST, of Pittsburg, said that as a result of an effort at collective investigation he had succeeded in securing reports of 1228 cases of typhoid fever. Of this number 575 were from private and 653 from hospital practice. Of the first group, 11 had otitis media, and in the second group 17 cases of otitis media were reported. He had not been able to get any statistics as to the frequency of mastoid complication in connection with typhoid fever. Thinking that otitis media might develop in the course of a typhoid fever as a result of treatment of typhoid by large doses of quinine, he had sought information on this point from those responding to his inquiries. One physician in reporting that he had treated 175 cases of typhoid fever stated that of this number 5 had developed otitis media. His practice had been to use large doses of quinine for hyperpyrexia. The occurrence of otitis media as a complication of typhoid fever was announced by the development of deep-seated pain and tenderness below the auricle, and also by a feeling of pulsation in this region and by tinnitus. If seen in the early or hyperemic stage, Dr. HENGST said he favored the application of leeches to the tragus and the installation of warm boric-acid solution. The ear should be kept clean, and, as soon as bulging is visible, the drum should be incised. In nearly all these cases the hearing had been fully restored.

The President objected to the use of moist heat in the early stage of inflammation of the ear, because of its tendency to cause breaking down of tissue. The pain could be as effectually relieved by dry heat. He would prefer to incise the drum membrane even before it bulged, as the depletion so produced was a valuable part of the treatment.

Ulceration of the Nasal Septum.—Dr. T. C. CHRISTY, of Pittsburg, read a paper with this title. He said that the disease was usually ushered in by the common signs of inflammation, together with those of obstruction of the nose. In most instances the lesion began on the septum, but owing to the swelling of the adjacent tissues, it readily spread. Tubercular ulcers were generally secondary; they

were slow in developing, and quite painful. His experience had taught him that prolonged residence in high altitudes often exerted a pernicious influence on the mucous covering of the septum nasi.

Dr. ROBERT LEVY said that after 10 years in a high altitude he was forced to dissent from the last statement in the paper. Persons for a short time after arriving in such a region often suffered from unusual dryness and from excoriations of the nose, but nature soon remedied the difficulty.

Dr. ARTHUR G. ROOT, of Albany, said, regarding specific disease of the nose, that he believed many physicians were disappointed with their results in these cases because they expected marvelous improvement, regardless of the general condition of the patient. Sometimes, therefore, these individuals would show more improvement if antispecific remedies were temporarily suspended, and the physician's whole attention directed to dietetic and hygienic treatment.

Dr. SNOW remarked that in cases of non-syphilitic ulceration of the septum he had found that applications of deliquesced chromic acid acted admirably.

Dr. HOLT emphasized what had been said about the great importance of proper attention to the hygienic treatment of syphilitics. If the stomach were irritable, iodide of sodium would be better borne than iodide of potassium.

Dr. W. B. JOHNSON, of Paterson, N. J., thought it rather dangerous to stop antisiphilitic remedies and attempt to feed up the patient while the syphilis was steadily endeavoring to break him down. Mixed treatment was often more serviceable than either mercury or iodide alone.

Dr. MAKUEN referred to a case in which the pathologist had reported the disease to be a round-cell sarcoma, but the operation having been unavoidably delayed, antisiphilitic remedies were ordered, and complete recovery quickly ensued. This illustrated the difficulties of diagnosis in some of these cases.

Dr. CHRISTY, in closing, said that he had desired in his paper to especially emphasize the importance of preserving in every possible manner the integrity of the mucous membrane of the nose in all cases.

The Mastoid and Intracranial Complications of Middle-ear Suppuration.—Dr. E. B. DENCH, of New York, read a paper with this title. He said that when as much care was taken to secure absolute asepsis as would be done in preparing for an intraperitoneal or an intracranial operation, and when care in operating was observed, he considered that a mastoid operation was devoid of danger, and was as justifiable as an exploratory procedure. Personally, he preferred to begin the incision at the tip of the mastoid, and carry it toward the insertion of the mastoid, leaving a space of about one-eighth of an inch. The incision should be carried up toward the superior part of the auricle. Drilling should be abandoned, and the opening made into the bone by means of a chisel. So far as he knew, Dr. EMIL GRUENING had been the first to lay down a systematic technique for the mastoid operation. The first objective point in the operation should be the mastoid antrum. The additus ad antrum should be carefully curetted, for otherwise the discharge was liable to persist. He had recommended a peculiar method of making the incision in order to avoid the deformity of the ear that usually followed the more common incision. The bony cavity alone should be packed. When there was no positive indication for a change of dressing he often allowed the first dressing to remain

undisturbed for five days or more. If the lateral sinus were injured during the operation, the hemorrhage could be readily checked by firmly packing in iodoform gauze. In doing an exploratory incision an ample incision through the integument should be made over the external meatus. The speaker then reported a case in which he had operated during the existence of an acute leptomeningitis, and yet recovery had ensued.

Dr. MYLES said that he could indorse the recommendations made in the paper regarding the method of incision to be adopted. It was questionable whether it was better to chisel at the upper level of the osseous margin or at the center. He avoided destroying the upper and posterior part, preferring to make the opening just posterior to the osseous portion. The approach to the lateral sinus could be known by the great hardness of the bone and the bluish color.

War on Tuberculosis.—The New York State Board of Health is making strenuous exertions to stamp out tuberculosis from among dairy herds of this State. The Board has determined to ask the Legislature to appropriate enough money to enable the health authorities to eradicate the disease, and next year will ask for an appropriation of \$300,000 to carry on the work. The physicians who are active in this crusade are Drs. DANIEL LEWIS, President State Board of Health; A. H. DOTY, Health Officer, port of New York; CHARLES J. WILSON, President Health Board of New York city; GEORGE B. FOWLER, Commissioner Health Department, New York city; T. MITCHELL PRUDDEN, Director Pathological Laboratory, College of Physicians and Surgeons; HERMAN M. BIGGS, director of Bacteriological Laboratory, Health Department of New York; BAXTER T. SMELZER, secretary of the State Board. In a lengthy circular-letter addressed to the Health Commissioners throughout the State the board says: "Tuberculosis is now so widespread in this State that no owner of cattle can be certain, no matter how well his animals may appear, that some of them are not already seriously diseased, and constantly infecting healthy animals with which they mingle in the stalls and pastures, or that the members of his own family are not being infected by the use of milk from such animals." They recommend the tuberculin test as a means of determining with certainty the existence even of incipient tuberculosis in those cattle which appear perfectly healthy and give no signs of disease. It is the purpose of the State Board of Health of New York to urge upon the Legislature such revision of the existing law upon this subject as shall insure certainty in the detection of the disease, free of cost to the owners of cattle, and an appropriation that will secure for the owner a direct and speedy payment by the State for all cattle destroyed at a fair and equitable rate.

Animals Transmit Infection.—In a recent address delivered by President Haynes of the Society for the Prevention of Cruelty to Animals, attention was drawn to the danger of infection by contact of diseased with healthy animals. He explained that the failure to disinfect house-animals is responsible for the activity of dissemination in diseases, such as diphtheria, small-pox, scarlet fever, measles, and diseases of the skin in general, and proposed prophylactic and precautionary measures that, if applied, would go far toward lessening the evil results.

CORRESPONDENCE

(From the BULLETIN'S Special Correspondents)

PHILADELPHIA LETTER

A meeting of the Section on Gynecology, College of Physicians, was held, April 16, with Dr. B. C. HIRST in the chair.

Dr. B. C. HIRST read a paper on "Study of the Bacteriology of the Vagina." He first reviewed the subject in general, and then gave the results of his work done at the University Hospital. In the normal acid vaginal secretions there were found no pathogenic bacteria. In the abnormal yellowish, slimy alkaline secretion he found vaginal bacilli, staphylococci, and saprophytes. In puerperal cases these pathogenic bacteria were prevented from growing by the germicidal action of the vaginal secretion, by leucocytosis, and by phagocytosis, and also by the flushing of the liquor amnii and blood and by the passage of the placenta. He thought that douching removed the vaginal secretion and in this way rendered sepsis more likely. Thorough washing of the external genitals and lower part of the vagina with antiseptic solution was the best method. He then reported a case of pseudosyphilis. The woman had peritonitis eight months before, which was followed by suppression of menses, abdominal enlargement, and other evidences of pregnancy. She was sent into the hospital by a physician who thought that she was in the eighth month of gestation. Under an anesthetic the uterus was found small and normal and the symptoms disappeared.

He reported three cases of tetanus in puerperal women, occurring about the same time in the wards of the University Hospital. After a careful examination into all the antiseptic methods employed in the hospital, all were found exact except the water used in making the 2-per-cent. creolin douches used after labor. This was drawn from the spigot, and was not filtered or boiled. All of the cases ended fatally. He next reported a case of hematoma of the vulva following labor. He had applied forceps without success, and then did version, and delivered a dead child.

Dr. NORRIS said he used douches of boiled water and bichloride with tartaric acid at the Preston Retreat, and he did not feel inclined to abandon their use so long as the results were good. He paid especial attention to cleansing the external genitals. He had seen a case with hematoma following the use of forceps, which disappeared without any treatment.

Dr. HAMILL said he did not use any douching at the Maternity Hospital, as he had had an epidemic of ophthalmia neonatorum, which was due to the irritation of ante-partum bichloride douche. He was careful in cleansing the external genitals. He asked Dr. HIRST what treatment he had employed in the tetanus cases.

Dr. LONGACRE said he did not employ douches in normal cases, but used bichloride douches in operative cases.

Dr. BOYD said if the birth canal was infected before labor, he douched to prevent ophthalmia.

Dr. HIRST, in answering Dr. HAMILL, said that Dr. H. C. WOOD would report the cases of tetanus fully, especially the treatment. He had used bromides and chloral in large doses; 3 oz. of bromides were given in 24 hours. Eserine, hypodermically, was also used. He did not use any antitoxin.

Dr. PENROSE reported a case of unusual tumor of the labia. It was a globular fibroid tumor about the size of an orange, attached by a large pedicle ex-

tending almost to the knees, measuring 10 inches. It began to grow 18 months ago, six months after the birth of the last child. At each menstrual flow it became congested, tense, large, and painful. These changes would also occur in internal fibroids, and account for the pain that women often suffered with fibroids.

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Dr. E. B. LANDIS, a University graduate, has presented to the University Museum an interesting exhibition of Korean objects. Dr. LANDIS went to Korea in 1890 to take charge of the Chemulpo Hospital of the Royal Korean Custom Service. At the close of the war with Japan the Emperor of China conferred upon him the order of the "Double Dragon." Dr. LANDIS, after a six-months leave, sails from Vancouver on April 20 for another five-years service.

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Dr. ROYAL W. BEMIS, late resident physician to the Municipal Hospital, has been appointed city physician to administer antitoxin to poor patients, at the request of the attending physician. The appointment is temporary, as the office is a new one and has not been tested to see whether it will be useful.

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Dr. J. W. ADAMS has been appointed consulting veterinarian to the Bureau of Police in the place of Dr. PEARSON, who was recently appointed State Veterinarian.

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Pending the appointment of physicians to fill the vacancies caused by the resignation of Dr. SIDEBOTHAM and the death of Dr. MATTEM, Coroner ASHBRIDGE has requested Drs. H. W. CATTELL and W. J. SCOTT to act as coroners' physicians.

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The Philadelphia College of Pharmacy held its seventy-fifth annual commencement on April 15. There were 220 graduates, which included 6 women.

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Dr. W. H. PANCOAST entertained the Pancoast Society, composed of students of the Medico-Chirurgical College, on April 17. There was present, besides the members of the society and faculty of the college, Mr. Herbert Bickerton, ophthalmologist to the Royal Infirmary, Liverpool. He has been a guest of his brother-in-law, Dr. L. Webster Fox, professor of ophthalmology in the Medico-Chirurgical College.

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Dr. WILLIAM HUNT, for 30 years surgeon to the Pennsylvania Hospital, died on April 17, in his 71st year. He was graduated at the University of Pennsylvania in 1849, after studying in the office of Dr. GEORGE B. WOOD. He was resident physician in the Pennsylvania Hospital for two years, and demonstrator of anatomy under Dr. LEIDY at the University for 10 years. He has served on the staff of many of the hospitals in the city. He aided largely in the preparation of the "Surgery" in the Pennsylvania Hospital, which is an epitome of the hospital since 1756.

Dr. WILLIAM K. MATTERN, coroner's physician, on April 16. He was a graduate of Jefferson Medical College of 1882. He was 50 years old and had suffered from nephritis, but was, at the time of his death, at his office, having just returned from making a post-mortem. He was at one time Police Surgeon, and has served on the Board of School Directors for some time.

SAN FRANCISCO LETTER

At the last regular meeting of the San Francisco County Medical Society Dr. JAS. SIMPSON sent in his resignation, stating that poor health necessitated his withdrawal from the society. Dr. SIMPSON was thereupon made an honorary member of the society.

At the same meeting resolutions were received from the Sacramento Society for Medical Improvement. These resolutions, protesting against a reduction in fees of medical examiners for life-insurance companies, were read and adopted. Dr. McNUTT, in the discussion, stated that a reduction of the fee would be a disgrace to the profession; \$5 was little enough for an examination; the physician's responsibility was great, and it was to be remembered that other officers of the companies were paid handsomely. One company is said to pay its president \$100,000 a year, and one, whose president was no longer able to serve, retired him on a pension of \$50,000 a year.

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The San Francisco Polyclinic, the post-graduate department of the University, which was opened some time ago with a great flourish of trumpets, has lost some of its prominent members. Drs. McNUTT, SHERMAN, MORSE, THORNE, and CLARKE have all recently resigned. These late members have little to say as to their reasons for resigning. The San Francisco Polyclinic's dispensary department, being very much abused, is a great detriment to the profession at large.

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Dr. R. BEVERLY COLE, president of the American Medical Association, says that the new building for the medical department of the University of California will be the finest on this or any other continent. At the last session of the Legislature \$250,000 were appropriated for the building. The granite to be used will be obtained free from the State quarries of San Quentin. In addition, Mayor SUTRO donated 26 acres of land in the finest part of the city, near Golden Gate Park. The plans of the building, the arrangements of the clinical, didactic, and other rooms, are unsurpassed.

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The twenty-sixth annual meeting of the Medical Society of the State will be held in Los Angeles from April 21 to 23. Many and interesting papers will be read and discussed in the different sections by the members of the society. During the meeting of the State Medical Society there will also be held in Los Angeles La Fiesta de Los Angeles, the famous annual celebration of Southern California. On Tuesday evening, April 21, a reception will be given to the members of the State Society and their lady friends by the Los Angeles County Medical and the Southern California Medical societies.

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California has lost one of its eminent microscopists, Dr. J. H. WYTHE, who recently died at his home in Oakland. Dr. WYTHE was born in Manchester, England, in 1822; graduated from a Philadelphia medical college, and, when the war broke out, was made an assistant surgeon of the U. S. Volunteers. In 1875 he made his permanent home in Oakland. Several years ago the doctor published a book entitled "Microscopy," which received favorable mention in Europe. He won honor by his work, and was made a Fellow of the Royal Microscopical Society of London. He was the pioneer Professor at the Cooper Medical College of San Francisco.

Recently a startling article appeared in our local papers stating that a burglar had been shot by a porter in a fashionable residence on California street, San Francisco. It is said the burglar attempted to enter the house, was caught by the porter, a conflict followed in which the supposed burglar was shot dead, while the porter received a slight wound on one side of the neck. It has been clearly shown by the police and medical experts that the porter inveigled the supposed burglar to the house and shot him; then putting the skin and cellular tissues, on one side of his own neck, on the stretch by traction with his fingers, shot a bullet through his skin. The porter is an epileptic. How is that for an apparently weak-minded epileptic, who wished to pose as a hero?

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San Francisco is not far behind New York with its new cures for consumption. Within the past few weeks the local press at several times devoted columns to a new cure that is being used at the City and County Hospital, its method of administration, histories of a few cases, with photographs of the new-cure doctor.

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At the meeting of the Board of Examiners of the Medical Society, State of California, held April 7, 1896, nineteen certificates were granted. Of the successful candidates four were from New York State, three from Colorado, three from Ohio, the balance from other reputable colleges in the Union.

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At the last meeting of the California Academy of Medicine a paper was read by Dr. DUDLEY TAIT on "A Case of Subdural Sarcoma," and a paper, "On the Chemistry of Edson's Aseptolin," by A. L. LENGFELD.

EDITOR'S NOTES

Indiana Doctors Meet.—The seventh regular meeting of the Northern Indiana Medical and Surgical Association was held in College Hall, Rochester, Ind., on April 23.

The Erie County (O.) Medical Society has elected the following officers for the ensuing year: President, Dr. A. F. COOK; vice-presidents, Drs. SYKES and HUGHES, Chicago Junction; secretary, Dr. CHARLES GRAEFE.

The State Hospital at Binghamton, N. Y., is to be furnished with sanitary plumbing at a cost of nearly \$11,000. There are now 1230 patients in the institution.

The Rochester Pathological Society, at its last meeting on April 9, adopted resolutions expressing the opinion that a serious mistake was made by the Health Board in dispensing with the services of Health Officer SIBLEY in that city.

Florida State Medical Association.—The newly elected officers of the State Medical Association of Florida, elected at the fourteenth annual meeting of that association, in Sanford, Fla., are as follows: K. DuBois, of Port Orange, president; Dr. W. H. CYRUS, of Palatka, first vice-president; Dr. J. H. HODGES, of Gainesville, second vice-president; Dr. J. D. FERNANDEZ, of Jacksonville, secretary and treasurer, and Dr. J. H. Douglass, of Jacksonville,

librarian. The annual oration was delivered by Dr. GEORGE TROUP MAXWELL, of Jacksonville, Fla., his theme being "Hygiene in Florida." Dr. MAXWELL took occasion to attack the Florida State Board of Health in regard to its treatment of yellow fever.

The Alumni Association of the Woman's Medical College in Baltimore, Md., has elected Dr. CLARIBEL CONE president; Dr. LOUISE EIRICH, vice-president; Dr. M. M. WARNER, corresponding secretary; Dr. EDITH EARICKSON and Dr. KATE McMILLAN, treasurers.

The Albany Medical College Alumni Association held its twenty-third annual meeting on April 14. The address of welcome was delivered by Prof. SAMUEL D. WARD, M.D., at the commencement exercises in Harmanus Bleeker Hall, in the afternoon. The address was delivered by the Rev. W. W. BATTERSHALL, D.D., of Albany. The Alumni dinner took place at the Kenmore in the evening.

The Sioux City College of Medicine Alumni, of Sioux City, have organized a medical association. This meets semi-annually, at the beginning and close of the school term. The following are the officers for the ensuing year: U. R. TALBOY, of Newcastle, Neb., president; N. D. TALCOTT, of Sioux City, vice-president; Miss KATE Z. HORNER, of Sioux City, secretary; Dr. F. J. PLONKE, of Everly, Ia., treasurer.

The Long Island College Hospital Alumni, at their last annual session on April 8, elected the following board of officers: Dr. JOHN A. McCORKLE, president; Dr. L. GRANT BOLDRON, vice-president; Dr. JOHN O. POLAK, corresponding secretary and treasurer, and Dr. A. S. AMBLER, recording secretary. There were about 125 members of the profession at the banquet that followed the regular business proceedings of the Association. Dr. E. H. BARTLEY, president of the Alumni during the fiscal year just ended, presided.

The Iowa State Medical Society began its forty-fifth annual session in Des Moines on April 14. There was a larger attendance than usual. The Hon. SIDNEY A. FOSTER, of Des Moines, delivered the address of welcome. Dr. JOSEPH M. EMMERT, of Atlantic, Ia., a member of the State Board of Health, and one of the leading physicians of the State, responded. The session of the society was divided into seven sections, as follows: 1, Theory and Practice, JAMES T. PRIESTLY, Des Moines; 2, Surgery, J. C. HUGHES, Keokuk; 3, Obstetrics and Gynecology, FRANK W. PORTERFIELD, Atlantic; 4, Nervous and Mental Diseases, F. C. HOYT, Clarinda; 5, Ophthalmology and Otology, J. W. DALBY, Cedar Rapids; 6, Materia Medica, F. W. WILL, Eagle Grove; 7, State Medicine, J. F. KENNEDY, Des Moines.

The Windham County, Conn., Medical Society held its 103d annual meeting on April 21. The sessions were presided over by Dr. F. A. MORRELL, of Putnam, who is president of the association. Dr. F. E. GUILD, vice-president, was present, and Dr. A. D. DAVID, of Willimantic, read a paper.

The Arizona Medical Association.—The fifth annual meeting of the Arizona Medical Association will be held in Prescott, that Territory, commencing Thursday, May 28.

Alabama Alumni.—The Alumni Association of the Medical College of Alabama, in session in Mobile on April 11, elected the following officers for the ensuing year: President, Dr. W. R. McKINLEY, of Binnsville, Miss.; first vice-president, Dr. IRA M. PORTER, of Mobile, Ala.; second vice-president, Dr. W. L. ABERNETHY, of Bell's Landing, Ala.; secretary and treasurer, Dr. S. S. TAM, of Mobile, Ala.

The Cumberland County, Pa., Medical Association has elected officers for the ensuing year as follows: President, Dr. DAVID H. OLIVER; vice-president, Dr. S. M. SCHNEIDER; secretary, Dr. H. MAILLY; treasurer, Dr. TOMLINSON. Drs. WILLIAM M. MELVILLE, S. M. WILSON, delegates to the American Medical Association; Drs. S. T. DAY, S. H. OLIVER, ELLSWORTH STITES, HAMILTON MAILLY, A. K. JUDSON, JOSEPH SHEPHERD, delegates to the Pennsylvania State Medical Society. Dr. S. M. SCHNEIDER, of Greenwich, Pa., read a paper on "The Business or Financial Rule of the Physician," and Dr. ELLSWORTH STITES a paper on "Professional Unity." Drs. N. HOWARD BURT, and LESLIE L. HAND were elected active members of the Society, and Drs. T. PARVIS and B. C. HIRST, of Philadelphia, corresponding members.

New Haven County Medical Society.—At the last meeting of the New Haven County Medical Society, on April 16, six new members were elected, viz.: Dr. ELIAS W. SEYMOUR, Yale, '92; Dr. ROBERT O. MOODY, of New Haven, Yale, '94; Dr. JOHN W. H. LAPOINTE, of Meriden, University of Laval, Montreal, '92; Dr. EDWARD S. MOULTON, New Haven, Yale, '94; Dr. WILLIAM F. VERDI, New Haven, Yale, '94. The name of Dr. S. D. OTIS, of Meriden, Conn., which had been proposed, was withdrawn. The society adopted a new constitution and by-laws, after which a report for the Committee on Public Hygiene, made by Dr. F. W. WRIGHT, was discussed by Dr. C. A. LINDSLEY. Drs. C. J. FOOTE and W. H. CARMALT reported on the diagnosis and treatment of cancers. Dr. JANVRIN, of New York, discussed early symptoms of cancer, and the necessity of taking early action.

Baltimore University Medical School.—The prizes to the graduating class of the Medical School of Baltimore University went as follows: University Prize, gold medal, for highest grade in final examinations, Messrs. JOSEPH A. ROSS and HARRY GROSS, of Maryland; Honorable Mention to DORSEY W. LEWIS and ALBERT EDWARD WILSON, both of Virginia; Medicine Prize, gold medal, ROBERT DU VAL, of North Carolina; Surgical Prize, instruments, to CURRAN BERTRAM EARLE, of South Carolina; Milten Berger Prize, instruments, VIRGIL E. FRANKLIN, of Virginia; Ophthalmology Prize, ophthalmoscope, JAS. F. WEBSTER, of Scotland. Officers of the class of '96 are: President, VIRGIL E. FRANKLIN; vice-president, DORSEY W. LEWIS; secretary, JAMES A. ROSS; treasurer, JAMES S. WEBSTER. At the Alumni banquet and reunion of the Alumni Association, Prof. JAMES E. ATKINSON, M.D., Class of '65, delivered an address on the "Present Status of Therapeutics." The toasts were responded to by Drs. J. WITTRIDGE WILLIAMS, EUGENE MCE. VAN NEST, R. DORSEY COALE, the Hon. EDGAR H. GANS, and the Hon. VIRGIL E. FRANKLIN.

New Hampshire Medical Society.—The following preliminary program of the next annual meeting of

the New Hampshire Medical Society, to be held in Concord, N. H., June 1 and 2, 1896, is announced:

"Medicine of To-day," by D. E. SULLIVAN, M.D., Concord, N. H.—"The Treatment of Severed Tendons," by W. A. MEGRATH, M.D., Loudon, N. H. Dr. Wm. H. MITCHELL to open discussion.—"Before and After Treatment of Laparotomy," by A. F. WHEAT, M.D., Manchester, N. H. Dr. D. S. ADAMS, Manchester to open discussion.—"Modified Milk as a Food for Infants," by A. K. DAY, M.D., Concord, N. H. Discussion opened by Dr. Geo. COOK, Concord.—"Intestinal Diseases of Children," by I. G. ANTHOINE, M.D., Nashua, N. H. Discussion opened by Dr. M. H. FELT, Hillsborough.—"Physical Exercise and Athletics," by J. W. SLEEPER, M.D., Franklin Falls, N. H.—"Myxedema," by G. W. MCGREGOR, M.D., Littleton, N. H.—"Medical Legislation," by James T. GREELEY, M.D., Nashua, N. H.—"Disordered Digestions," by L. J. FRINK, M.D., Bartlett, N. H.—"Altitude: Its Effects upon Different Individuals; with Report of Two Cases," by Geo. S. GOVE, M.D., Whitefield, N. H. Discussion opened by Dr. G. P. CONN, Concord, N. H.—"Varicella," by Dr. Geo. COOK, Concord, N. H.

Dr. EUGENE F. MCQUESTEN, of Nashua, N. H., will deliver the presidential address, and this will be followed by a banquet and post-prandial exercises. Dr. G. P. CONN, of Concord, is secretary of the society.

Maine Academy of Medical Sciences.—The 12th annual meeting of the Maine Academy of Medical Sciences took place in Portland, Me., on April 13. Dr. J. C. DUNHAM, of Hebron, Me., read a paper on "Some Disturbances of the Pneumogastric Nerve." The discussion was opened by Dr. J. A. DONAVAN, of Lewiston, who was followed by Drs. D. A. ROBINSON and J. F. HILL, of Waterville; C. W. PRICE, of Richmond; C. A. PEASLEE, of Wiscasset; W. B. SMALL, of Lewiston; C. E. WILLIAMS and J. A. HALL, of Westbrook; and Dr. DAVIS, of Biddeford. A paper on the "Assistance of Chemistry to Manufacturing and other Commercial Enterprises" was read by SAMUEL PETERS, Esq., and the discoveries of Prof. Röntgen were elaborated in a paper read by L. M. SANBORN, A.B., of Gardiner, Me.

On to Atlanta.—The physicians of Atlanta, Ga., are making great preparations to arrange for the entertainment of the American Medical Association, which is to convene at Atlanta on the 5th of May. It is estimated that during the deliberations of the national body there will be present at least from eight hundred to one thousand physicians from all parts of the United States. Members of the profession in Atlanta propose to entertain the national body in an elaborate and hospitable manner. It is already planned to treat the visiting doctors to a real old-fashioned barbecue, "with plenty of Brunswick stew." This barbecue is to be given at Lithia Springs, a resort near Atlanta, on which occasion the visiting physicians will have ample opportunity to give practical tests of the virtues of that water. On the day after the barbecue, there is to be a banquet at the Capital City Club. This in itself will be one of the most elaborate undertakings ever known in the Southern States.

Railway Surgeons' Meetings.—The first annual meeting of the Florida State Railway Surgeons took place on April 6, in the parlors of the Sanford House, Sanford, Fla., Dr. S. G. WORLEY, president of the association, calling the meeting to order. Dr. J. H. HODGES, of Gainesville, delivered an address, and President WORLEY read a very able paper setting out the business meeting. The officers elected were: President, D. H. CALDWELL, of Sanford; first vice-president, J. H. HODGES, of Gainesville; second

vice-president, W. L. HUGHLETT, of Cocoa; secretary and treasurer, JAMES M. JACKSON, Jr., of Bronson; executive committee, P. M. LEWIS, of Kissimmee; S. G. WORLEY, of St. Augustine; and W. H. CYRUS, of Palatka.

On April 14 the railway surgeons of Georgia held their convention.

American Orthopedic Association.—Below we present the preliminary program of the tenth annual meeting of the American Orthopedic Association to be held at Buffalo, N. Y., May 19, 20, and 21, next.

The president's address will be made by Dr. ROYAL WHITMAN, New York, after which the following papers will be read:

"Some Practical Points in the Treatment of Lateral Curvature of the Spine," by Dr. A. B. Judson, New York.—"Some Etiological Factors in Lateral Curvature of the Spine," by Dr. E. G. Brackett, Boston.—"Cases Illustrating the Absurdity of Treating Ordinary Lateral Curvature (Scoliosis) by Spinal Supports," by Bernard Roth, F.R.C.S., London.—"The Rationale of Gymnastic Exercise and Pressure Correction in the Treatment of Scoliosis," by Dr. L. A. Weigel, Rochester.—"The Rapid Cure of Rotary Lateral Curvature of the Spine and Other Postural Deformities by Means of Thorough Development, and Corrective Exercises with heavy weights. With a Demonstration of the Method," by Dr. Jacob Teschner, New York (*by invitation*).—"A Simple and Efficient Brace for Lateral Curvature," by Dr. S. L. McCurdy, Pittsburgh.—"Congenital Misplacement of the Femur Anteriorly," by Dr. DeForest Willard, Philadelphia.—"Further Remarks on Congenital Dislocation of the Hip," by Bernard E. Brodhurst, F.R.C.S., London.—"Report of a case of Double Congenital Dislocation of the Hip, treated by the Lorenz Method of Operation," by Dr. Reginald H. Sayre, New York.—"The Cure of Congenital Dislocation of the Hip by Means of the 'Functional Weighting' method, without Open Operation," by Dr. Adolph Lorenz, Vienna.—"Spontaneous Dislocation of the Hip," by Dr. William J. Taylor, Philadelphia.—"The Treatment of Club-Foot: (a) When to commence treatment and how; (b) the indications for mechanical treatment; (c) the limitations of mechanical treatment; (d) the indications for operative treatment; (e) results in 343 operations performed by the writer," by Dr. A. M. Phelps, New York.—"Investigations on Flat-Foot," by Dr. E. H. Bradford, Boston.—"Mechanical Support for Flat-Foot," by Dr. John C. Schapps, Brooklyn.—"The Anterior Transverse Arch of the Foot," by Dr. Joel E. Goldthwait, Boston.—"Injuries of the Tarsus and the Ankle Joint," by Dr. J. D. Griffith, Kansas City.—"Subtendinous Exostosis," by Dr. E. G. Brackett, Boston.—"The Mechanical Treatment of Ingrown Toe Nail," by Dr. Henry Ling Taylor, New York.—"The Operative Treatment of Paralytic Deformities of the Foot with Particular Reference to Arthrodesis," by Dr. V. P. Gibney, New York.—"Some Mechanical Problems in the Treatment of Pott's Disease," by Dr. John C. Schapps, Brooklyn.—"The Operative Treatment of Threatening Abscesses in the High Dorsal Region," by Dr. E. H. Bradford, Boston.—"The Treatment of Pott's Paraplegia, with a Report of Two Cases," by Dr. Le Roy W. Hubbard, New York.—"Osteomyelitis of the Spine," by Dr. T. Halsted Myers, New York.—"Suppuration in Joint and Spinal Disease and its Relation to Tubercular Meningitis. An Analytical Study," by Dr. Samuel Ketch, New York.—"A Study of the Action of Iodoform Glycerin in Tubercular Osteomyelitis," by Dr. Harry M. Sherman, San Francisco.—"Joint Disease in Infancy," by Dr. Augustus Thorndike, Boston.—"The Use of Dry Heat of High Temperature in the Treatment of Chronic Joint Affections," by Dr. William E. Wirt, Cleveland.—"A Theory of the Ultimate Etiology of Deformity and its Practical Application," by Dr. Royal Whitman, New York.—"The Probable Cause of the Limp in the First and Second Stage of Hip-Joint Disease," by Dr. Harry M. Sherman, San Francisco.—"Femoral Osteotomy for Correction of Hip Deformity in Adults. with a Report of Cases," by Dr. A. R. Shands, Washington (*by invitation*).—"A Report of Cases of Osteosarcoma of the Hip," by Dr. Arthur J. Gillette, St. Paul.—"Division of the Hamstring Tendons by the Open Method for Correcting Malposition and Securing Rest in Tubercular Disease of the Knee," by Dr. Bernard Bartow, Buffalo.—"Tuberculosis of the Wrist and Carpus," by Dr. James E. Moore, Minneapolis.—"Symptoms and Treatment of Slight Knock-Knee in Children," by Dr. Robert W. Lovett, Boston.—"Two Cases of Dislocation of the Patella Treated by Operation," by Dr. Joel E. Goldthwait, Boston.—"Some Notes on Spastic Paralysis in Children," by Dr. F. S. Coolidge, Chicago.—"Some Recent Modifications in the Treatment of

Congenital Wry Neck," by William Adams, F.R.C.S., London.—"Contracted Fingers," by Dr. Arthur J. Gillette, St. Paul.—"Congenital Club-Hand, the Report of a Case Treated by Operation," by Dr. C. E. Thomson, Scranton (*by invitation*).—"Rare Cases from Practice," by Dr. A. J. Steele, St. Louis.—"A Report of Some Cases of Unusual Congenital Deformities," by Dr. John Ridlon, Chicago.—"Congenital Defects of the Long Bones, a Report of Cases and Operations," by Dr. B. E. McKenzie, Toronto.—"Deformities of the Humerus due to Rickets," by Dr. Augustus Thorndike, Boston.—"A Report of a Family of Anomalies," by Dr. S. L. McCurdy, Pittsburgh.

Kansas Medical Society.—The following program of the Kansas Medical Society, which will hold its annual meeting at Topeka, Kan., May 13, 14, and 15, is announced:

OPHTHALMOLOGY, OTOTOLOGY, AND RHINOLOGY

"Some Remarks Concerning Glaucoma," Dr. J. H. Thompson, Kansas City, Mo.—"Catarrhal Deafness," Dr. W. W. Campbell, Atchison.—"Some Pupillary Phenomena; Normal and Pathological," Dr. E. E. Hamilton, Wichita.—"Clinical Significance of Anosmia," Dr. E. B. LeFevre, Abilene.—"Mastoid Abscess Complicated with Lateral Sinus Thrombosis and Diabetes." Operation—Recovery. Dr. G. A. Wall, Topeka.—"Intubation—Report of Case." Dr. P. D. Hughes, Kansas City, Kan.—"Clinical Cases." Drs. Minney and Magee, Topeka.

SURGERY

"Foreign Bodies in the Alimentary Canal." Dr. L. Reynolds, Horton.—"Antiseptic and Aseptic Surgery." Dr. P. Daugherty, Junction City.—"A Clinical Demonstration of Sayres's Method of Applying Plaster-of-Paris Jackets for the Relief and Cure of Potts Disease." Dr. E. E. Liggett, Oswego.—"The Surgical Treatment of Puerperal Septicemia." B. J. Wetherby, Hutchinson.—"The Surgery of the Gall Bladder." Dr. J. W. Perkins, Kansas City, Mo.—"Stone in the Bladder: Lithotomy or Lithoplaxy? Which and When?" Dr. S. E. Sheldon, Topeka.—"The Bacillus Tuberculosis in Knee Joint." Dr. J. A. Lane, Leavenworth.—"Operation for Gall Stone, with Specimen." Dr. S. Murdock, Oneida.—"Empyema." Dr. Geo. M. Gray, Kansas City, Kan.—"Recent Progress in Orthopedic Surgery." Dr. D. D. Wilson, Nortonville.—"Alveolar Abscess—Report of Cases." Dr. D. J. Moyer, Junction City.

GYNECOLOGY

"The Success of Conservative Treatment." Dr. T. C. Biddle, Emporia.—"The Use of Gauze as Drainage in Abdominal and Pelvic Surgery." Dr. Milo B. Ward, Topeka.—"Report of Cases." Dr. H. H. Sutherland, Herington.—"Prolapsus Uteri; Its Cause and Treatment." Dr. C. E. Pontius, Fairview.—"The Most Fruitful Cause of Uterine and Ovarian Disease." Dr. C. C. Seabrook, Burlingame.—"Diagnosis of Intra-Abdominal Neoplasms." Dr. A. H. Cordier, Kansas City, Mo.—"Obstetric Forceps." Dr. L. J. Cunkle, Madison.

MEDICINE

"Diagnosis and Treatment of Diphtheria." Dr. D. Y. Graham, Nortonville.—"Tobacco, Considered from an Esthetic and Hygienic Point of View." Dr. M. M. Ochiltree, Haddam.—"The Need of More First-Class Medical Men." Dr. S. S. Glasscock, Kansas City, Kan.—"Little Things in Medical Practice." Dr. F. C. Herr, Ottawa.—"The Future of Medical Colleges in the Smaller Cities of the United States." Dr. Daniel Morton, St. Joseph, Mo.—"The Blood Serum Therapy." Dr. S. G. Stewart, Topeka.—"Alcohol Not a Stimulant." Dr. W. L. Warriner, La Cygne.—"Tertiary Syphilis." Dr. R. E. McVey, Topeka.—"Quackery." Dr. G. P. Marner, Marion.—"Municipal Medicine." Dr. J. L. Gilbert, Topeka.—"The Medical Man on the Witness Stand." Hon. J. G. Waters, Topeka.

The corresponding secretary is G. A. Wall, M. D., Topeka, Kan.

College Notes.—At the recent examinations at the College of Physicians and Surgeons, Baltimore, Md., the prize men were: ALBERTUS COTTON, Ohio; F. L. BARNES, Texas; F. H. COOPER and J. A. M. HEMMEON, Nova Scotia. Each received a gold medal. Those who received honorable mention were as follows: D. A. BERNDT and R. HUNT, Ohio; J. C. AUSTIN, Vermont; J. B. NOWLIN, Jr.,

Virginia; R. A. HAYNES, West Virginia; J. E. GOLLEY, Maryland; H. G. BECK, Pennsylvania; W. J. LEONARD, Massachusetts.

The fifteenth commencement of the Women's Medical College, Baltimore, took place on April 13. Dr. I. R. TRIMBLE, Dean of the College, presided. There were eight graduates.

Only 7 of the 50 who were seniors of the Albany, N. Y., Medical College, failed in the final examination.

New Hospital for Chicago.—The Chicago Woman's Medical Club recently elected officers and perfected plans for the building of a hospital to be known as the "Woman's City Hospital." At the next council of the committee, which is composed of the entire club roster, a board of trustees will be appointed. Nine directors will be chosen aside from a medical board. The latter will comprise an attending surgeon, obstetrician, gynecologist, oculist, and a force of physicians, dental surgeons, and pathologists.

The hospital will be exclusively under the control of women physicians, though male members of the profession may be admitted to the attending staff, the main object being to install the highest talent irrespective of sex.

The plans and the structure for the Woman's City Hospital, which have already been drafted, convey a good idea of its scope. The basement will be occupied and equipped for laboratories. The first floor will be divided into wards, one of which will be isolated for the treatment of contagious diseases. Surgical wards for both sexes will take up the second floor, together with a maternity ward and the offices of the management. The third floor will be devoted to wards for the treatment of tuberculosis, children's ward, convalescent ward, etc.

The Woman's Medical Club is noted for the energetic spirit with which its members collectively instituted various hygienic reforms within the past two years. It was instrumental in the success of a vigorous campaign against milk adulteration, and has in contemplation measures for the better care and treatment of boy criminals.

Dr. GERTRUDE GAIL WELLINGTON is president of the Woman's City Hospital Committee.

An Ambulance Law.—In the New York Assembly the Judiciary has reported a bill making it a misdemeanor for an ambulance physician or attendant to refuse to take a person, for whom a call may be made, to the hospital or place of reception for the sick or injured, from which the ambulance came, for examination and treatment by the house authorities of said hospital or place of reception for the sick or injured. The intention of this measure is to put a stop to the practice of refusing to take a supposed drunken person in—a practice that has sometimes resulted in death.

District of Columbia Alive.—The bill for the incorporation and reorganization of medical and dental colleges in the District of Columbia has passed both Houses of Congress and has gone to the President for his approval.

A Library as a Gift.—At the last regular meeting of the Academy of Medicine of Syracuse, N. Y., a letter from IRVING DUNLAP was read, in which he presented his father's medical library to that organization. Dr. DUNLAP died a few weeks ago.

New York Hospital Report.—In the 125th annual report of the Society of the New York Hospital appear some interesting communications from Dr. S. B. LYON, superintendent of Bloomingdale, at White Plains.

Of 145 cases admitted during the year 1895, 17 were suffering from acute mania, 29 from acute melancholia, 27 from primary delusional insanity, 32 from general paresis, and the remainder from a variety of insane conditions.

In 107 of the patients hereditary tendency to mental disease was denied or unknown. Of the cases in which hereditary tendencies were discoverable, they were transmitted through the maternal branch of the family in the larger number of cases.

Forty cases are reported as recovered, and in these the average duration of the disease had been 8 months and 10 days.

Twenty-six patients recovered from mania and 14 from melancholia. More women than men recovered. Of the 28 deaths, 12 were from general paresis, and 2 of these were women. An inquiry as to possible phthisical heredity in 31 male paretics resulted in the discovery that 8 cases were of tuberculous family, 3 were unknown, and 20 had no phthisical relatives whatever. The average number of patients of all kinds in the institution during the year was 299.

The new hydro-therapeutical department is reported to have been of decided benefit to many cases. The amusement pavilion, which contains bowling alleys, a billiard and pool table, racquet court, gymnasium, reading-room, and sun-parlor, has been very much appreciated. Lectures are now delivered to the men and women attendants in a school for training on the general model approved by the British Psychological Society.

Denver vs. Cemetery.—The city officers of Denver, Col., propose to appeal to the State Supreme Court from the decision from the Court of Appeals of that State in regard to the city cemetery and the city's authority to condemn it. There has been great opposition to permitting any more burials to take place in this cemetery, and, until the final decision of the Supreme Court is handed down, the health commissioner of Denver will issue no permits for further burials.

New Departure in Missouri.—It is reported that the Board of Health of Missouri will not recognize the diplomas issued by colleges in the States of Iowa or Illinois after June, 1896.

A Mob Burns an English Hospital.—A small-pox hospital at Oakridge, near Stroud, in England, was recently burned to the ground by a mob of several hundred people, the majority of whom were residents of the vicinity, who objected to its presence in the neighborhood. A party of police from Gloucester appeared on the scene early the following day and arrested the leaders, who are now held for trial.

Woman Once More Recognized.—The Society of Medical Jurisprudence of New York has voted in favor of admitting women to membership. JOHN SABINE SMITH, the president of the society, says that the question was brought up by the application for admission by two women physicians within the last two months. The names of the women applicants will not be made public until after they have been voted upon.

Appropriation for Craig Colony.—There are now 66 patients in the Craig Epileptic Colony, at Mt. Morris, N. Y. Governor Morton has signed the appropriation bill for this colony, which sets apart about \$75,000 for improvements of all kinds on the premises. The institution was opened on January 20. It is thought that by May 1 the number of patients will reach 100.

Ann Arbor in Line.—The Medical Faculty at the Ann Arbor, Mich., University propose to make the course there in effect a six-year one, corresponding to the recent advance in requirements made by the Harvard Medical School. Many students there have taken both the literary and medical course together in six years, by combining their work, and getting credit for the same in both departments at the same time. The idea now is to make this a requirement instead of optional, so that hereafter physicians will have to possess a literary degree as well as that of M.D.

Free Speech Punished.—Dr. A. L. BENEDICT, of Buffalo, N. Y., has been relieved of his duties as instructor at the School of Pharmacy, a department of the University of Buffalo. This is the outcome of a discussion over an article written by Dr. BENEDICT, and published in the AMERICAN MEDICO-SURGICAL BULLETIN, under his name, on February 8, and entitled "Shall the Physician Carry His Own Drugs?" The article created some excitement among the students at the School of Pharmacy of Buffalo and among the friends of the university. A meeting of students took place upon call expressly to discuss the matter, and resolutions were adopted denouncing the article and asking the faculty to dismiss Dr. B. from the corps of instructors. Dr. B. maintained there was nothing in the article he was not ready to stand by or substantiate if necessary. The position of both students and professor created pronounced division of feeling, and the faculty finally decided to support the students in the controversy. Dr. ERNST WENDE is filling the vacancy temporarily. Dr. BENEDICT says he does not consider the action of the faculty an injury, and he sees no occasion to change his views in the least. The article, he states, was not aimed at pharmacists who do a legitimate business. He says he has received a great many letters on the question at issue, and that all of them support his views.

Pure Beer Wanted.—Dr. W. J. O'SULLIVAN, of New York, drew up a bill introduced in the Legislature last week, providing for the brewing of pure lager beer in New York State.

Expert-testimony Act.—We print in full Assembly Bill No. 1943, now before the New York Legislature. The question of regulating expert testimony in criminal cases has long been a vexed one, and the solution proposed by this bill seems to be very reasonable:

AN ACT

TO REGULATE THE EMPLOYMENT OF MEDICAL EXPERT TESTIMONY IN CRIMINAL PROCEEDINGS

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Whenever any person in confinement, under indictment for the crime of murder, attempt to murder, manslaughter, arson, highway robbery, forgery, or other felony, may desire to present medical expert testimony in his defense, whether of a medical, surgical, or chemical

nature, he shall so inform the court at the time of his arraignment for trial, whereupon the presiding judge before whom such trial is pending shall appoint such number of experts as he may deem necessary to adequately represent both the prosecution and the defense, and the compensation of such experts shall be fixed by an order of the court at a rate that shall be reasonable for professional services of such a nature. The experts so appointed shall be persons of repute and qualified in the branch of medical science to which the question calling for expert opinion relates, and shall have full and free access to the evidence adduced on the trial, as well as to the defendant, if the issue involves his mental or physical state. On the completion of their examination, the said experts shall submit to the court for transmission to the jury as evidence a report in writing, attested by their oaths, setting forth their conclusion, together with the facts upon which such conclusion is based. If counsel on either side shall demand it, the experts may be sworn as witnesses, but their examination and cross-examination as such shall be limited to the facts and opinion contained in their report to the court.

Sec. 2. All acts or parts of acts inconsistent with this act are hereby repealed.

Sec. 3. This act shall take effect immediately.

Personal.—Dr. WM. M. McLAURY, an old practitioner of New York, was relieved of his watch, valued at \$100, in a Forty-second street car recently. Dr. McL. seems to be particularly unfortunate in getting in touch with pickpockets in street cars, as he had previously lost three watches under like conditions. Hereafter, he says, he will wear a brass watch and a cotton watchguard.

Dr. CHAS. G. WAGNER, Superintendent Binghamton State Hospital, Binghamton, N. Y., has been nominated as Alumnus of Cornell University. Dr. WAGNER was a member of the class of 1880. Dr. D. E. SALMON is the retiring president whose place Dr. WAGNER takes.

Dr. H. D. BARNES, of Lancaster, Pa., has left that city for Chicago, which he proposes to make his home.

Prof. ROSWELL G. PARK, of Buffalo, N. Y., addressed the members of the Erie County Medical Society, on April 8.

Dr. FRANCIS J. QUINLAN has been appointed laryngologist and rhinologist at St. Vincent's Hospital, New York city.

The will of Dr. J. WEST ROOSEVELT, of New York city, shows his estate to be valued at \$40,000 in real and \$25,000 in personal property.

Dr. GEORGE H. WITTER, of Wellsville, N. Y., has been elected president of the Hornellsville Medical and Surgical Association.

A report from Cape May, N. J., states that President WAY, of the Ocean County Medical Association, read a paper before the annual meeting of that body on April 16, on the subject of "Fish-slime Disease," which it is said has heretofore been unknown to the medical profession. He claims that it is a species of blood-poisoning distinct from any other.

Dr. FLINT, Health Commissioner of Erie, Pa., has sent in his resignation, upon the request of the Mayor. Politics is supposed to be at the bottom of the matter. Dr. FLINT is reported to have made a very efficient health officer.

The following eight physicians have been recommended for appointment as internes at the Kings County Hospital for the coming year: JOHN W. NELSON BIRT, D. HARRINGTON, W. T. REED, HERBERT D. DALE, FRED. M. MILLER, EDGAR H. FARR, GEORGE BARNES, GUY C. WEBSTER.

Dr. T. DALBY has recently been elected Grand Master of the Grand Lodge of Masons of the State of Utah.

Dr. THOMAS TAYLOR, of Washington, D.C., has been awarded a gold medal by the International Society of Hygiene as a fitting recognition for services rendered in his investigation of butters, fats, etc., in the United States.

Dr. SAMUEL B. LYON, Medical Superintendent of Bloomingdale Asylum, accompanied by Mrs. LYON and their son, is enjoying a Mediterranean tour.

Dr. W. A. SCOTT, of Niagara Falls, New York, has been appointed Health Officer of that city.

Dr. W. S. CALDWELL, of Freeport, Ill., who has recently undergone very delicate surgical operation, and who subsequently made a trip to the West Indies as far south as Trinidad, is now back at his home, greatly improved in health.

Dr. WILLIAM STEVENS announces his removal from 133 West 41st street to 70 West 52d street on May 1, 1896.

Obituary.—DR. JOHN JAMES DALEY, in Rahway, N. J., on April 14, aged 44 years. He was born in Rahway, and in 1865 entered the office of Dr. SAMUEL ABERNETHY, where he began the study of medicine. He was sent to the University of New York, and was graduated in the class of '73 with high honors. He returned to Rahway, and after Dr. ABERNETHY's death, Dr. DALEY took his old preceptor's practice. He had been mayor of Rahway five times, and filled that office at the time of his death. He was a director in several financial institutions, was one of the commissioners appointed to build the New Jersey State Reformatory, was a member of the Union County, N. J., Medical Association, and also a member of several other important organizations.

Dr. J. WEST ROOSEVELT, at his home, 32 East 31st street, New York city, of pneumonia, on April 10. Dr. Roosevelt had been ill for so brief a time that many of his friends learned of it only through the announcement of his death. The deceased was as well known in literary, general, scientific, and reform circles as he was in his profession. He was graduated in 1880 from the College of Physicians and Surgeons, in New York, and made general medicine a specialty. He conducted clinics in Bellevue and Roosevelt Hospitals, and was an active member in the Board of Attending and Visiting Surgeons of those institutions. He was director of the Seton Hospital for Lung Diseases at Spuyten Duyvil, N. Y., a hospital that was opened last year. Dr. ROOSEVELT was a leading member of the New York Academy of Medicine, and was prominent in all the deliberations of that body. He had a lively interest in politics and public questions, and was conspicuous in the investigation undertaken by the Academy in the interest of political reform. He was a member of the Century Club and of the Pathological Society, the Society for the Relief of Widows and Orphans, and other social and professional organizations. Dr. ROOSEVELT was a son of SILAS WEIR ROOSEVELT, at one time a conspicuous lawyer in New York, and was a cousin of THEO. ROOSEVELT, President of the Police Board, and nephew of JAMES R. ROOSEVELT, the banker, and a cousin of JAMES R. ROOSEVELT, Secretary of Legation at London. He married Miss Laura D'Oremieulx, who survives him with three children.

Dr. JAMES JAY MAPES, of New York city, on April 10, at Saranac Lake, N. Y. Dr. MAPES had been ill for the past ten months, and had sought the bracing atmosphere of the Adirondack regions in the hope of restoring his fast waning energies. He was a son of CHAS. V. MAPES, and a nephew of Mrs. MARY MAPES DODGE, and was 29 years of age. He was graduated from the School of Arts, Columbia College, eight years ago. He commenced the study of medicine at the College of Physicians and Surgeons in New York, and on graduating stood first in his class. Later he studied at the University of Edinburgh, winning a gold medal for the highest honors in anatomy, a distinction never previously gained by an American. Subsequently he entered the New York Hospital for a short period, and then spent a year in Vienna and Paris. Returning to New York in 1885, Dr. MAPES was made Physician-in-charge of the Nursery and Children's Hospital, and remained in that post until the disease which caused his death subsequently developed.

WILLIAM SHARP, F.R.S., of London, England, in Llandudno, Wales, on April 10, aged 91 years. Dr. SHARP was born at Armley, England, and began his hospital career in 1825 in London at Guy's and St. Thomas's Hospital, where Sir ASTLEY COOPER was chief. Subsequently he went to Paris, and attended lectures at the Sorbonne, and also at the School of Medicine. Later he returned to England and engaged in practice. He was practically the founder of the system of local museums, now followed by nearly every town in England. He received the honor of the fellowship of the Royal Society for this, and it was upon his suggestion that the teaching of physical science was introduced in all the public schools of England. Dr. SHARP had been a frequent contributor to medical journals, and set out the details of his inquiry in the various sects of medicine in a series of "Essays on Medicine," published at irregular intervals since 1851. These number 60 volumes and postscript.

Dr. JOHN F. MCKENZIE, at Leroy, Ill., on April 13, aged 53 years. He was a native of Kentucky, and a cousin of the Hon. ADLAI E. STEVENSON, Vice-President of the United States, a brother of Hon. JAMES MCKENZIE, ambassador to Peru. For many years Dr. MCKENZIE was superintendent of the Asylum for the Insane at Jacksonville, Ill. He was educated for the medical profession at Louisville Medical College, Louisville, Ky., and was graduated from that institution in 1874.

Dr. THEO. LAMB, in Augusta, Ga., on April 14. He studied medicine at the University of Heidelberg, Germany, and was graduated with honors. He came of a family of physicians, his uncle, Dr. EDWARD GEDDINGS, being one of the most prominent doctors in Augusta, in LAMB's boyhood days. Dr. L. was 40 years of age at the time of his death.

Dr. A. L. WILLIAMS, of Brookfield, Conn., was killed by a railroad train in that city, on April 16. He was the oldest practicing physician in Connecticut, and had been engaged in his profession in Brookfield for 60 years. He was 88 years old, and was a member of the Connecticut Medical Society, and Registrar of Vital Statistics.

Dr. THOS. T. MARTIN, at Allentown, Pa., on April 15, aged 45 years. The cause of death was Bright's disease. Dr. MARTIN came of a family of physicians, and his family was one of the earliest to settle in Lehigh county. He was a prison physician, and a member of the Pension Examining Board.

Dr. OLIVER GOSS, one of the oldest and most successful physicians in New Hampshire, at Laconia, that State, April 13, aged 87 years. He began the study of medicine at the Harvard Medical School, and was subsequently graduated from Dartmouth Medical College.

Dr. RICHARD K. KEELER, of Goodville, Lancaster county, Pa., April 1, aged 58 years. He was educated at Washington Hospital, Trappe, Pa., and was graduated in 1858. About twenty-five years ago, he located in Lancaster, and has practiced there ever since.

Dr. CLARENCE L. FITCH, of New Haven, suddenly at his home in that city, on April 13, of heart disease. He was educated at Dartmouth, and graduated from Dartmouth Medical College in 1882. He had practiced in New Haven for 13 years.

Dr. JOSEPH A. MURPHY, at Wilkes Barre, Pa., aged 54 years. He served during the war, and subsequently studied with Dr. J. A. ATLEE, Lancaster, Pa. He was graduated from the University of Pennsylvania, in 1868.

Dr. ST. GEORGE BRIDGES, of Richmond, Va., on April 13. Dr. BRIDGES had made a special study of appendicitis, and was looked upon as an authority on that disease. Appendicitis was the cause of his death.

Dr. JAMES W. KING, Milford, Conn., in that city, on April 17, of tuberculosis of the bladder, aged 56 years. He had practiced in Bridgeport since 1875.

Dr. ALFRED MILLER, formerly of Stillwater, Minn., who was an army surgeon at Fort Ripley from 1861 to 1864, at Berne, Switzerland, March 3.

Dr. JAMES B. HARRIS, at Sag Harbor, L. I., April 18. He was graduated from the College of Physicians and Surgeons, New York, in 1883.

Dr. NELSON SAUNDERS, in Randolph, N. Y., on April 4, aged 73 years. Dr. S. was graduated from the Buffalo Medical College in 1849.

Dr. WM. C. TAPPAN, at his home, Baltimore, Md., on April 10, aged 78 years.

Dr. L. A. WOLLCOTT, of Berlin, Wis., in that city on April 15, age 45 years.

Dr. BRANTY POMERENE, in Mount Hope, O., on April 10, aged 28 years.

Dr. IRA C. OWEN, at his home, Sherburne, N. Y., April 16, aged 74 years.

Dr. F. T. BLETCHER, in Sparta, O., on April 10.

Sanitary Conditions in Mexico and Cuba.—Dr. A. H. DOTY, Health Officer of the Port of New York, has just returned from a trip to Mexico and Cuba, where he has made close observation as to the condition of the ports in those regions, regarding yellow fever. He found the sanitary condition of Vera Cruz deplorable. It is the home of yellow fever, and he says that it is not to be wondered at, when it is understood that there is no system of drainage, and that there is none in contemplation. Filth is drained into streets, vaults, and cesspools, and these are occasionally emptied on the outskirts of the town. The water supply, which is from the river, is fairly good, but the hotels,

as in Mexico City, are execrable. Sanitary conditions are of the most primitive kind. He has made arrangements to keep under observation all vessels from Vera Cruz that may arrive in the port of New York. Tampico he also found to be a city of 5000 inhabitants, with no drainage or water supply. Vessels with contagion on board are not allowed to touch at this point, but are sent back to Vera Cruz. Quarantine at Tampico is a small disinfecting plant, which the health officer attends when he sees fit. Progreso, another town he visited, has no drainage system, and the water supply is inadequate.

Speaking of Havana, Dr. DOTY says that the sewerage system could not be worse. The few sewers now in use are defective, and allow ground saturation. No attempts, so far as he can learn, have been made in Havana for disinfecting, and he was unable to secure any information as to what action would be taken in the event of the introduction of cholera in that place. There are no evidences, to a close observer, of a health department existing on the island of Cuba.

PUBLISHERS' DEPARTMENT

A NEW RUBBER FOOT

An improvement has been made recently in artificial feet which seems to leave nothing more to do in order to produce as nearly a perfect counterfeit of the natural member as it is possible for human ingenuity to contrive.

The new invention consists of the insertion of a mattress of canvas in which is imbedded, side by side, a layer of narrow, flat, steel springs. The canvas holds them in the pocket, in which they slide freely, and the ends are capped with metal to prevent their perforating the rubber and leaving their proper bed.

The rubber which rests above this mattress is spongy, containing, therefore, a large percentage of air, increasing the lightness and also the flexibility of the foot. Further, just above the posterior end of the mattress, in the heel there is a large air chamber so arranged that it cannot burst, thus preventing the heel from matting or failing in elasticity.

The foot is also lightened, and now weighs from eight to sixteen ounces less than any other made, varying according to the weight of the person wearing the limb. A. A. MARKS, of New York, is the sole proprietor of this artificial foot.

This constitutes a valuable addition to the extremely serviceable apparatus for which Mr. MARKS is noted.

RICKINE

The preparation "Rickine," made by the well-known firm The G. F. Harvey Company, of Saratoga, N. Y., is meeting with great favor among the medical profession. Testimonials from prominent physicians are being constantly received by the firm confirming its valuable properties as a palliative agent in cases of severe colds and headaches, both bilious and nervous. It also promptly relieves griping pains in stomach or bowels. It is used largely likewise to reduce temperature. It has no depressing effects, and no untoward reaction follows its use.

The remedy has now been before the profession for about three years, and its increased sales show its value to be fully established.

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No. 18

THE DEVELOPMENT OF THE THYROID TREATMENT

THE discovery of a sovereign remedy for myxedematous conditions has made the thyroid gland an object of general interest.

It was not until this year, however, that the results of the large number of clinical, physiological, and pathological observations concerning it have been embodied in monographs by EWALD (NOTHNAGEL'S "Spec. Path. and Ther.," Vol. XXII) and by MURRAY (WOOD'S "Twentieth-century Pract."). To either of these works all who desire a full discussion of the question are referred.

A brief review of a subject of which the clinical importance has become so great may prove of interest to readers of the BULLETIN.

What is known of the function of the thyroid gland may be told in few words. It is supposed to supply a secretion which neutralizes some toxic agents which are in the blood, or to contribute to the organism some substance which is requisite for health. A blood-forming function has also been ascribed to the thyroid; a recent article by HASCOVÈC, in which he attempts to prove this theory, is inconclusive. There is also an anatomical similarity between the hypophysis cerebri and the thyroid and in some cases of acromegaly the thyroid is found enlarged; further than this the relation between the two, if any, is but little understood.

Disease of the thyroid, aside from inflammatory or neoplastic processes, passed unrecognized until recent years. In 1873 Sir WILLIAM GULL described "a cretinoid state supervening in women in adult life."

In 1887 ORD described a number of cases similar to those reported by GULL; and in some of them, at autopsy, he found atrophied thyroid glands. The results of chemical examination of the tissues reveal-

ing a slightly increased amount of mucin, ORD named the condition "myxedema."

In 1883 two Swiss surgeons, REVERDIN and KOCHER, had described the condition in man which ensues when, for any cause, the thyroid gland is removed by operation. This they called cachexia thyreopriva or strumipriva; but although the symptoms were nearly identical with those of the cases described by GULL, they did not recognize that both conditions were due to the same cause. It was SEMON who pointed out this relationship and who argued for a common condition, probably a causative factor, in myxedema, cachexia thyreopriva, and cretinism, viz., loss of function of the thyroid gland.

This theory was proposed at a meeting of the Clinical Society of London, and, as a result, a commission was appointed by the society to investigate the whole subject.

In 1885 HORSLEY showed that removal of the thyroid glands of monkeys produced in these animals symptoms very similar to those in man of myxedema, sporadic cretinism, and cachexia thyreopriva. The report of the Clinical Society's commission was not published until 1888, almost simultaneously with a paper written by HUN and PRUDDEN on the "Pathology and Symptoms of Myxedema." HUN and PRUDDEN showed that myxedema was associated with atrophy of the thyroid gland, and the conclusions of the English investigators were that myxedema and cachexia thyreopriva are identical, and that sporadic cretinism is myxedema occurring in childhood, and that myxedema and endemic cretinism are closely related. These remain to-day the accepted views of the nature of the several conditions.

Soon after it was known that loss of thyroid func-

tion was the cause of myxedematous conditions, it was attempted to artificially supply the glands of animals to cases in which thyroid activity had been lost by removal or impaired by disease. BIRCHER, in 1889, grafted the thyroid gland of an animal in a patient with operative myxedema, or cachexia thyreopriva. v. EISELSBERG made analogous experiments on cats from which the thyroid had been removed at operation. Similar procedures were employed by other investigators, and it was found that the results of thyroid grafting in myxedematous conditions were of temporary benefit only. Though followed for a time by a disappearance of symptoms, the beneficial effects of the implantation soon passed away and the original condition returned.

With these facts in mind, G. R. MURRAY in 1891 concluded that the treatment of myxedema required a constant supply of thyroid; and as in none of the former experiments had the grafted gland become active, he undertook the treatment of a case of myxedema by the hypodermatic injection of an extract of the thyroid gland of the sheep. The results of this method of treatment were so brilliant and so quickly substantiated by clinicians the world over, that since that time it has been recognized that the thyroid gland is a more unfailing specific for myxedema than quinine is for malaria, or mercury for syphilis.

The gland is prepared for therapeutic use in several ways. The sheep is the animal most frequently selected to supply it, although the cow may be used. It may be given raw, as a dried powder, or as a glycerine extract. It is now largely prepared by druggists in the form of tablets, each tablet representing 1 grn. of the powdered glands or as a powder, to be given in capsules. From one to three grains of the gland are given daily, at the beginning of treatment. The hypodermatic use of the extract has now been generally abandoned, since it has been shown that mouth feeding is less dangerous and equally efficacious. The doses are increased as the treatment proceeds, the increase being regulated by the tolerance of the patient. When too rapid loss of weight or elevation of temperature occurs, or when the heart becomes feeble, it is a sign that the doses are too large; if these warnings are heeded and the doses decreased or temporarily suspended, the treatment can be carried out without difficulty or danger.

All that the thyroid treatment of myxedematous conditions promised to do was to supply to the body the necessary substance which the gland

of the patient was no longer able to produce. It never undertook to supply a new thyroid gland; and the disappearance of the symptoms of myxedema under the thyroid treatment means that the necessary thyroid secretion is being artificially supplied, and not that the function of the patient's thyroid gland has been restored. Consequently, anyone in whom the activity of the thyroid gland has been lost must continue the use of the thyroid glands of animals for the remainder of life.

That the myxedematous patient may remain in permanent good health without symptoms of myxedema as long as he continues to take thyroid, seems reasonable to suppose. Dr. MURRAY reported last August that the first patient thus treated continues well at the end of four years, and he has never found it necessary to increase the dose (10 min.) of the extract.

Cachexia thyreopriva, or operative myxedema, has been successfully treated in the same way. The most wonderful results of thyroid-therapy are to be seen in the myxedema of childhood, or sporadic cretinism. Sporadic cretins are children in whom the early atrophy of the thyroid has caused an arrest of mental and physical development, in addition to the symptoms of myxedema. They are myxedematous, idiotic dwarfs. Under the influence of the thyroid administration the myxedematous symptoms recede, the mind develops, so that the child begins to talk and to understand, and physical growth is resumed. One case, 18½ years of age and 33½ in. in height, in whom no growth had occurred in 14 years, grew 4½ in. in a year. Another, 29½ in. high at 16½ years of age, grew 6½ in. in six months.

It is still not definitely proved that endemic cretinism has exactly the same pathology as sporadic cretinism; and lack of sufficient evidence renders as yet uncertain what would be the result of thyroid feeding in developing endemic cretinism.

In sporadic cretins the best results are obtained, as might be supposed, in young children; that these results will be permanent, and that these idiotic children will, under the influence of the thyroid, grow up to be intelligent men and women it is impossible to say. The method is still in its infancy, and we can only wonder at what the thyroid treatment has done for these children in the past three years, and hope that the brilliant prospects of permanent benefit or cure will be fulfilled.

The therapeutic use of the thyroid has now been tried in many other conditions with varying success.

From its action on the skin it has been employed by dermatologists, notably in the treatment of psoriasis.

riasis and scleroderma; from its weight-reducing power it has been of benefit, combined with other measures, in the reduction of fat; in exophthalmic goiter it is of doubtful service. But apart from myxedematous conditions the use of the thyroid has not been sufficiently general to justify conclusions as to its value.

The use in medicine of the thyroid glands of animals arose from scientific studies in pathology and physiology. It is a logical conclusion from adequate premises and has nothing in common with some other largely advertised "organic extracts" which are false in theory and worthless in practice. In the discovery of the therapeutic value of the thyroid gland, medicine gained a wonderful remedy, which has already given proof of its power and which is full of promise of further benefit to mankind.

Ethics for Medical Men.—The world-wide controversy that has attended the Kitson-Playfair case, and stamped speculation, as to the probable outcome, on every stage of the proceedings to its *finale*, has at last simmered down to deductive reasoning and suggested the propriety of the establishment of a chair of medical ethics in English schools, where the embryo doctor will be instructed in the business and ethical branch of his calling. The necessarily delicate relation which the physician bears to his patient will at last be regarded in the light of a sacred trust. It must needs be so if intimate contact with and confidence in the physician are to be sustained. It is urged that a course of ethical lectures, defining the status of the medical man and setting forth his moral and medico-legal obligations to the patient, be instituted. Such a course is not only very desirable, but pre-eminently necessary in the present light of affairs, and the spirit of the whole profession is to stamp the same as a part of the medical education of every physician, which should be held an absolute prerequisite to admission to practice. There is no good reason why the patient of the medical man should not demand and be accorded the same rights as the lawyer's client, and the case in question has furnished the material for a precedent which it is hoped will hold for all time.

Smallpox in England.—Gloucester and Bristol, England, are suffering from a smallpox epidemic. The source of infection seems to have been the former city, and the agent of its dissemination, a tramp. The public vaccination office in Gloucester is vaccinating upward of five hundred persons a day. The rapid spread of the disease is alarming, and local authorities are taking every precaution to prevent further infection. Six additional hospitals are being built there. The reason given for the alarming pace with which the disease has recurred is assigned in part to the determination of anti-vaccinators to resist the precautionary measures afforded by the use of vaccine. At a recent joint conference of the local authorities plans were formulated for the isolation of new cases as they occurred, and precautionary measures were adopted for the protection of the unaffected.

ORIGINAL CONTRIBUTIONS

SURGICAL TREATMENT OF HARE-LIP AND CLEFT-PALATE IN CHILDREN*

By D. H. GOODWILLIE, M.D.

THERE is no part of surgery that requires more mature judgment and experience, with decided surgical and mechanical skill, than the correction of deformities of the lip and of the hard and soft palate.

It is a physiological fact that all tissues and organs of the body, when impaired, have a natural tendency to reparative action and to recovery of form and function. This is especially so in the early period of extra-uterine development. The hard and soft tissues that are concerned in the lesions of the lips and palate are a most prominent example of the above statement. All the muscles in these congenital lesions, having lost their normal action, tend, in the process of development, to still further abnormal conditions in both the individual muscle itself and in the relation to the other muscles of the lesion.

In correcting the deformity, the bone lesions must be operated upon as early after birth as the bodily condition and circumstances of the child will permit, and before ossification takes place to prevent moving the bones into normal position. This, as the first important step in correcting the deformity, is accomplished by mechanically forcing the maxillary and nasal bones into normal position, and subsequently closing the hare-lip and the soft palate. The deformity is corrected by some original methods, and with newly devised instruments whereby the deformed bone is brought into normal position.

In the consideration of this subject, which has engaged the author's attention for many years, he desires to recall to memory the muscles that are concerned in these congenital lesions of the lip and palate, in order to a better understanding of their treatment.

In the congenital solution of the continuity of the upper lip, it is principally confined to the orbicularis oris muscle; but the relation this muscle sustains to other muscles, as antagonists, requires a careful examination in order to obtain a good diagnosis with a view to the proper correction of the deformity. I have found, by experience, that there is less change in these antagonistic muscles in infancy, as to their comparative normal relations to each other, than in the adult; in the latter, the muscles and integument change in accordance with the amount of each particular lesion. While some atrophy for want of use, others through use become well developed. Contraction, more or less, takes place in both muscles and integument.

The orbicularis oris consists of labial and facial layers of muscular fibers, forming the sphincter of the mouth and interlacing, on either side, with the other muscles inserted into the lips. The labial

* Read before the New York Academy of Medicine, March 19, 1896.

fibers circle uninterruptedly, from one lip to the other, around the corners of the mouth in a somewhat round fasciculus of aggregated fine, pale fibers, forming the red, free margin of the lips. To the facial or external portion of the orbicularis are inserted all the fibers of the other oral muscles, and acting antagonistically to it. This portion of the orbicularis oris has four bands, two (accessorii orbicularis superiores) of which arise from the incisive fossa near the origin of the depressor alæ nasi. Passing outward, on each side, to the angles of the mouth, they are inserted with other muscles in this part. The other two bands (naso-labialis) connect the upper lip to the nasal septum. An interval is left between these two accessory portions of the orbicularis just described, which forms the depression beneath the nasal septum, and is seen on the surface of the skin.

The orbicularis oris, a sphincter muscle, whose ordinary action is the closure of the lips, is the direct antagonist of all those muscles which converge to the lips from various parts of the face. The principal antagonistic muscles to be considered, in the labial lesion, are the levator labii superioris alæ-

follows immediately. When the bone framework is restored to its anatomical position, the further operation of closing the lip fissure becomes not only simplified, but the result is much better.

The object to be attained in a hare-lip operation, is the restoration of the normal appearance and function of the lip. In order properly to accomplish this, the normal restoration of all the muscles that are involved in the lesion is necessary. Every divided fiber of the orbicularis oris must be joined to its fellow, in order to restore its normal action, and also that of the pairs of elevator muscles which are inserted into it. For anatomical and physiological reasons this can better be accomplished, as a rule, by union in the center of the lip, both in the single and double cleft. Union of the orbicularis oris in the single cleft, under the ala, does not permit the pairs of antagonistic muscles to act jointly; consequently, when in action, the deformity is apparent.

OPERATION.—The following articles are necessary in the operation of hare-lip: Lip clamps, scissors, small knife, curved needles, needle holders, fine catgut sutures, antiseptic dressing, adhesive

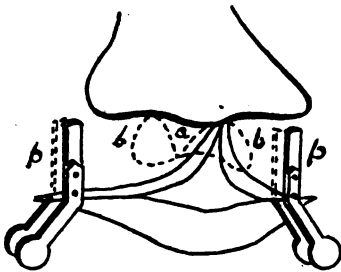


FIG. 1

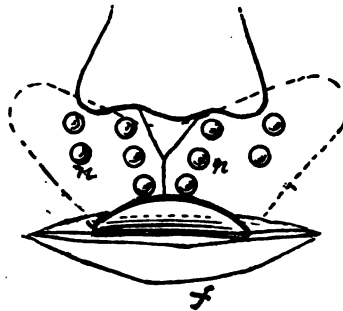


FIG. 2

que nasi divided by two slips; one is inserted into the cartilage of the ala of the nose; the other is blended into the orbicularis and the levator labii superioris proprius, the next muscle. The zygomaticus, major and minor, is inserted into the angles of the mouth, posterior to the last muscle. The levator anguli oris, arising from the canine fossa, has its fibers inserted into the angles of the mouth, blending with those of the zygomatici. This muscle is not an antagonist, as it raises the angle and draws it inward. Other muscles, together with the integument of the face, act indirectly as an opposing force to be overcome in the operation of cleft-lip.

Hare-lip.—Hare-lip is the result of imperfect intra-uterine development. The upper lip is developed from a central and two lateral points. When these portions fail of union, a fissure is the result. The fissure is either on one side or both; it is seldom in the center. Fissure of the lip, either single or double, may be complicated with fissures of the alveolus and of the hard and soft palate.

The author's method of treatment is first to close the cleft bone, when this is associated with the lesion of the lip—after which the closing of the lip

plaster three-quarters of an inch wide, an anesthetic and a retaining hare-lip plate and pins; these articles to be sterilized.

The lips, nostrils, and mouth of the child to be antiseptically cleansed by spraying with peroxide of hydrogen.

The child, dressed in its night-clothes, is to be wound in a large towel around its body and fastened in front with safety-pins; a small towel over the head and crossed and fastened below the occiput to the other one on the body. The child is then placed upon the surgical board, and a towel wound around child and board.

For the past twenty years the author has performed this operation by making with a small knife a V-shaped center flap (Fig. 1, *a*, dotted line) with symmetrically curved cuts on each side of the cleft lip (*b* and *b*, dotted lines). The incisions start at the same point of each nostril, curve, and come out at similar points on the vermillion border. The V-flap should be at least one-half the breadth of the lip. Sever with the scissors any connection the lip may have with the bone. Apply the lip clamps (*pp*) to prevent hemorrhage and as a means of handling the parts.

The retaining hare-lip plate (Fig. 2, *c*) is lined on the under surface with gutta-percha, which is made soft by mild heat, and closely applied to the intermaxillary bone by gentle pressure. The lower edge of the plate turns up over the border of the lip for protection. When the retaining plate is in position (see Fig. 2, dotted line) bring the lip into place over it, and retain it by passing first the outer pins (Fig. 2, *n*) through the lip and the holes in the retaining plate into the bone. The mucous membrane and skin are carefully united with fine sutures of catgut.

The retaining plate and pins paralyze the motion of all the muscles that are concerned in the lesion, and secure a complete union of all the fibers of the orbicularis oris; and, in cases where the bone has been forced together, it is kept in normal position until union has taken place. (Fig. 2, *f*.)

Seal the wound with antiseptic collodion or rubber tissue kept in place by a long strip of adhesive plaster, wide enough to fill the space between the nostrils and the external edge of the retaining plate. The child can now be fed without any fear of disturbing the wound. The retaining plate is to be removed about the sixth day, and when the bone has been forced into place it is to remain until the tenth day. Primary union will take place in a very short time, but it is necessary to support the union of bone and soft tissue until it is quite firm. Remove any ligatures that are not absorbed.

In some cases there is a pouting out of the under lip by a hypertrophy of mucous and submucous tissue, and occasionally by some hypertrophy of the muscular fibers of the orbicularis oris; this condition is brought about by functional inactivity of this sphincter muscle.

My method of remedy is to take out a section of mucous and submucous tissue down to the internal fibers of the orbicularis oris, and suture the wound so made with catgut. In order to remove a symmetrical section, I use a lip gauge which determines how much tissue should be taken away to correct the deformity.

Lesions of the Palate.—Lesions of the palate may be divided into accidental and congenital. *Accidental lesions* are from traumatic causes or constitutional disease, the most frequent of which is syphilis. *Congenital lesions* are from some defect in the fetal development, occurring for the most part in the palatine vault, producing a solution of continuity that may involve either bone or soft tissue. The following are some of the varieties of clefts, viz.:

Lesion No. 1.—A cleft on one side of the intermaxillary and extending through the lip, hard and soft palate. (Fig. 3, XI.)

The intermaxillary, being attached to one maxillary bone, and having failed connection with the other, loses anatomical position and straightens out, carrying the nose to that side; and, as the anterior nasal septum rests on the intermaxillary, the nose is more or less carried out of the perpendicular, distending the ala of the cleft side.

Lesion No. 2.—A cleft running on both sides of the intermaxillary and extending through the hard and soft palate, accompanied by a double hare-lip. (Fig. 3, XII.)

The intermaxillary, which contains one or more teeth, is separated from the maxillary on either side, and often protrudes on the nasal septum to the tip of the nose. The nose in normal position.

Lesion No. 3.—Cleft of the palatal vault, soft palate, and uvula. The lip and alveolar process in normal condition. (Fig. 3, X.)

Lesion No. 4.—Cleft of the soft palate and uvula. (Fig. 3, IX.)

Lesion No. 5.—Cleft of the uvula.

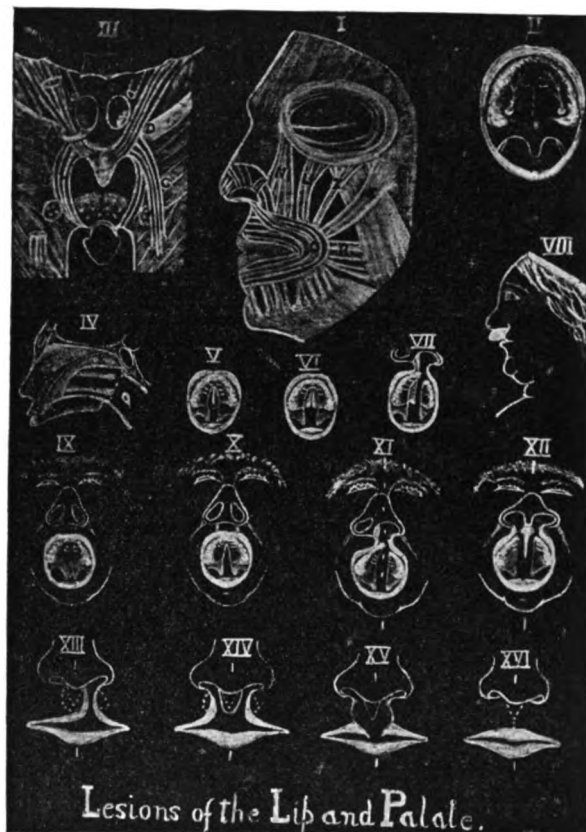


FIG. 3

THE TREATMENT is as follows: In many cases there is enough tissue developed, but there is a failure to unite, and the maxillary bones are separated, making the diameter from side to side greater in proportion to other parts of the face.

In all simple or double clefts *all* bone tissue should be preserved, to prevent deformity in adult life. What is of special importance in this method is to restore the bones to the normal position without any loss of hard or soft tissue, except so much as would be required to freshen the edges of opposing parts.

The cleft of the hard palate and of the lip, if any exist, should be closed soon after birth, and before the child is two months old, before ossification has advanced and the bones are pliable, and to avoid injuring the developing teeth. The closure of soft palate, if it is to be by a surgical operation, should be done, if possible, before the child begins to speak, or before two years of age.

Lesion No. 1 represents a cleft of the lip on the left side, and of a cleft through the left of the intermaxillary, extending through hard and soft palate. Bone development has been sufficient in amount, but there being a failure of the two sides to unite in the process of growth, the bones became separated, and the intermaxillary attached to the right maxillary leaves the normal anatomical form of the anterior alveolus and becomes more or less straight; the free end of the intermaxillary protrudes forward into the cleft of the lip.

By this straightening process the nose is carried to the right side as the anterior part of the nasal septum rests on the intermaxillary, while the left ala is very much stretched to the left. The usual practice is to close only the lips in infancy; but in order to do so, it is necessary to have the protruding end of the intermaxillary removed, either by cutting it away or crushing it, both of which are bad surgery. By the former the bone is removed with all the tooth germs, and by the latter the germs are destroyed and the parts misshapen.

The operation for the relief of the deformity is

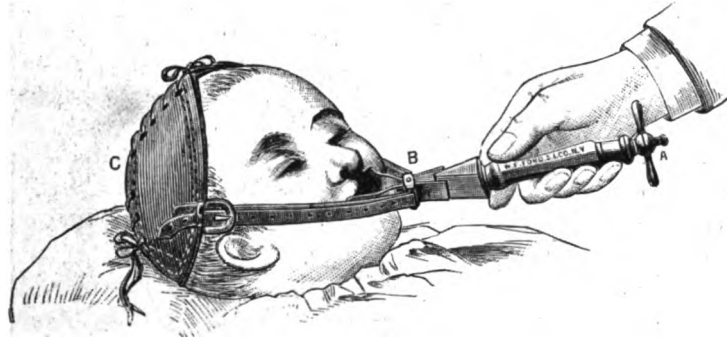


FIG. 4

made in the following manner: The child is placed under an anesthetic, and by means of a small revolving knife and the surgical engine, or small hand saw, a V-shaped section is removed inside of the alveolar process of the intermaxillary, also running up into the septum a very little, and at the same time the edges of the cleft of the hard palate are freshened by the knife. Just enough is taken away by the V-shaped section to allow the alveolus of the intermaxillary to resume its normal position. The maxillary bones are forced together so as to close the cleft in the hard palate. Then a nasal forceps is passed into the nostrils, grasping the septum and resting on the intermaxillary, the nose is drawn into perpendicular position, and at the same time the intermaxillary is forced into its normal place, closing up the V-shaped section made by the revolving knife or saw.

The alveolar ridge of the intermaxillary now connects with the maxillary of the opposite side, and the cleft in the lip is closed.

The advantages of this method are:

(1) The cleft in the hard palate is closed in all cases where there is the normal amount of bone developed, and deformity prevented.

(2) The alveolar ridge with the tooth germs are saved and brought into place, securing, as nearly as

possible, the normal outline of the mouth and subsequent development of the teeth.

(3) The nose is brought into normal position and the over-distended nostril restored to its proper shape.

(4) The normal appearance of the face is reclaimed.

Lesion No. 2.—The treatment of a double cleft with the intermaxillary protruding on a line with the nose.

Denude the periosteum; amputate the dwarfed intermaxillary; force the maxillaries together, and then unite the lip.

When the intermaxillary is of good proportions and moderately extended forward, remove a small V-section of the septum posterior to the anterior vessels. This is most efficiently done by means of a small revolving knife and the electric surgical engine, or strong scissors. Force in the maxillary so that it will close the V-section.

Pare the edges of the opposing surfaces of the intermaxillary and maxillary bones. Then force the maxillary bones in to meet the intermaxillary. If this cannot be done by the force of the surgeon's thumb, then use a maxillary compressor, applied to the buccal surface of the maxillaries above the alveolus.

The compressor (Fig. 4) is held in place by straps, on each side, that are attached to a skull-cap. Turning the screw at A, the handle approximates the maxillary bones. They are now held in place by the retaining plate.

Lesions Nos. 3, 4, and 5.—Treatment of cleft of the palatal vault, soft palate, and uvula.

This operation should be made before the child's second year when he begins to speak. The judgment of the surgeon must determine, in each case, whether it is advisable to close the whole cleft in one operation, or the soft palate and uvula first, and the hard palate by a subsequent operation. In the author's experience, the muscles, at this age, need little or no cutting. The author's practice is to stretch the muscles. Much benefit can be derived by grasping the divided soft palate between the thumb and finger, covered with a napkin, or pliers protected by cotton, so as not to injure the soft tissue, and stretch the muscles of both sides toward the center. This should be done, soon after birth, every day until the operation, since it tends to the development of the muscles.

Staphylorrhaphy and Uranoplasty.—The conditions necessary for a successful surgical treatment, of practical value to the patient, may be stated as follows:

The child should be in good, thriving condition, by proper food and care. The nose, naso-pharynx, and mouth should be kept clean by an antiseptic spray.

In closing the cleft of the palate, the tissues should have thickness in both hard and soft palate, and especially length from the point of the cleft uvula to the union of the soft and hard palate.

When muscular action is restored, the resiliency of the soft palate should be such as to act like a curtain in the naso-pharyngeal space for the control of the voice and to prevent food from entering the nasal cavity in the act of deglutition.

Union in less favorable cases may be made, but the soft palate appears as a stretched band, with faulty voice and deglutition.

From the abnormal action of the muscles of the palate, the free interchange of the intratympanic air is prevented. The exposure of the eustachian orifice to the baneful influence of food, liquids, etc., retains the secretions. From these abnormal conditions the equilibration of intratympanic pressure is prevented, and this often results in purulent otitis media. While suppuration is going on, it would not be wise to operate on the soft palate. There is less danger from this and from adenoids in infancy.

The following surgical instruments are necessary: Surgical board and winding-sheets, oral speculum, long seizing-forceps, four long-handled knives, periosteal elevators, drill, chisel, armed needles and needle-holders, sutures, pliers, and lead clamps, long-handled small scissors, holder and sponges, anesthetizing tongue-spatula, and tenaculum.

The child is dressed for operation as before described.

Put the oral speculum into place. This position gives a good view and ready access to the parts to be operated upon, while the blood and mucus fall into the nasal cavity and pass out through the nostrils. The assistant holds the tongue or lips, when necessary, by means of the hollow tongue-spatula (Fig. 5), through which he also administers the anesthetic, while the operation proceeds without delay. The anesthetic is placed in the hollow handle, and this is connected with a small rubber tube (which passes over the assistant's neck to hold the anesthetizing spatula, when not in use) to an air-ball, which is worked by the hand, arm, or foot. This may also be connected to a condensed-air receiver. Seize the divided uvula with the forceps and put on a stretch and transfix it with the small pointed knife near the forceps; carry the incision forward to the anterior point of the cleft, then cut loose the uvula end. Repeat on the other side.

The hollow needle (Fig. 6) armed with a silkworm-gut ligature is then passed through the two flaps, commencing at the lower part of the cleft. The ligature is now pushed through the point of the hollow needle and grasped with a forceps, and the needle withdrawn. The ends of the ligature are temporarily fastened together by small lead clamps with pliers. Repeat this until all the required ligatures are passed. Tie the ligatures with the fingers, commencing, as a rule, with the lower one. See that the cut edges approximate well.

When necessary, the levator palati is divided by putting the flap on a stretch, and a double-edged knife is passed through the soft palate just on the inner side of the hamular process. A sweeping cut is made by an antero-posterior motion of the handle along the posterior surface of the soft palate. Then withdraw the knife from the small opening made in the anterior surface. When necessary the palatopharyngeus and palato-glossus are divided by a pair of curved scissors just below the tonsils.

In *uranoplasty* the soft tissue in the hard palate is either lifted from the bone by the periosteal eleva-

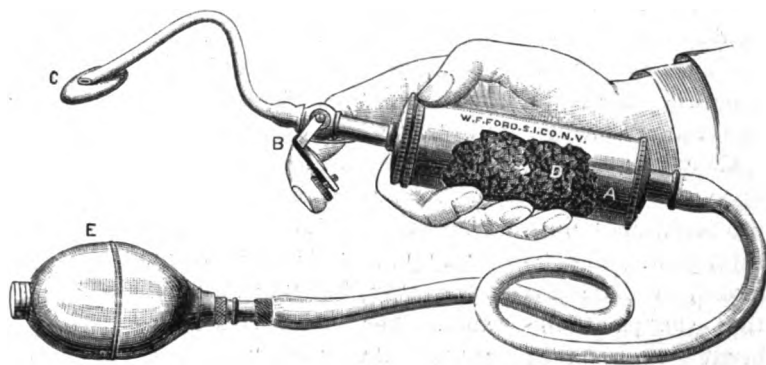


FIG. 5

tor or through lateral incisions in the soft tissue. Make the incisions inside the palatal vessels. (Fig. 3, II.)

The bone of the hard palate is drilled, split, and sprung over and held together by ligatures. Ligatures are removed after a period of from four to six days.

When the uvula only is cleft and of normal length, without affecting the voice, it is better not to interfere. If from its length, it irritates the pharynx, without affecting the voice, then amputate. When the voice is affected, close by sutures.

The nasal lesions should have due consideration in the treatment of lesions of the palate (especially in adult cases), as the abnormal condition of the nasal cavity will have its influence on the speech.

In addition to the lesion of the palate, there may be little or no bony nasal septum on account of the non-development of the vomer, thereby giving an

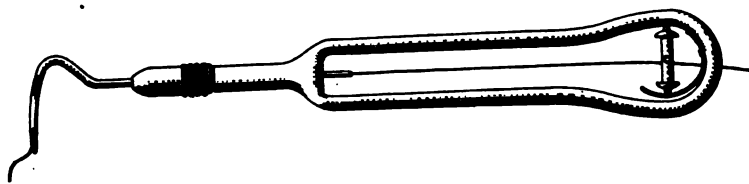


FIG. 6

abnormal amount of nasal air-space, and producing a deep nasal tone of the voice after the closure of the palate. As the child grows older, there is a development of erectile turbinated tissue, which compensates for the loss of the bony septum and produces a consequent improvement in the voice. In some cases there is great hypertrophy of the turbinated tissue, so that, when the cleft palate is closed, there is little or no air-space, and a nasal tone is the result. This condition is more frequently seen in

the case of an adult. (Fig. 3, IV, V, and VI.) Before the cleft in the palate is closed, this hypertrophic turbinated tissue must be reduced in size, to give the normal amount of space in the nasal cavity. The nasal septum may be well developed, and may or may not be attached to one side of the palatal bone. (Fig. 3, VII.)

In a few cases, where the cleft in the hard palate is wide and the soft-palate tissue large in amount, close the soft palate by an operation, and the cleft in the hard palate by an artificial palate. Where there is a wide cleft of the hard and of the soft palate, with a small amount of tissue, no operation should be done. Artificial palate is the only treatment. In the case of the child this will be deferred to the time when the teeth are sufficiently developed to attach the artificial palate to them.

Conclusion.—In conclusion, permit me to impress upon you the utmost importance of having these oro-facial deformities corrected not later than the third year. The bone and lip in the first or second month of extra-uterine life; then follows in proper time the palate operation. The first comes as a matter of necessity; the surgical remedy of the palate, only under favorable conditions, and there are many exceptions.

The *first* operation on any of the parts ought, by all means, to be successful. In case of failure a second operation is only permissible under the most favorable conditions.

About a quarter of a century ago, in a discussion before the Medical Society of the State of New York, the author stated the principal points set forth in this paper, with special reference to infancy as the golden opportunity to rectify these deformities. I believe that the treatment of these oro-facial deformities is keeping pace with all the other surgical possibilities, and I sincerely hope that the day is not far distant when these surgical deformities in the adult will be among the things of the past.

New York; 154 West Thirty-fourth street.

School Seats and Desks.—The Academy of Medicine of Syracuse, N. Y., is taking up the subject of curvature of the spine in children by reason of bending over at their desks in school, and has passed a resolution to employ an adjustable seat and desk. Dr. JOHN L. HEFFRON, chairman of the committee to investigate the matter, is reported to have said that at the time he found from two to three pupils affected with curvature of the spine in every room of the schoolhouses visited in Syracuse. On his report, the academy has formally adopted and incorporated these points in a report presented to the Common Council of Syracuse. The report is signed by Drs. JOHN L. HEFFRON, ALFRED MERCER, and R. C. McLENNAN, who constituted the committee appointed by the Academy to investigate the state of arrangements of the public schools in Syracuse, and to attend to the essential requisites of a proper seat and desk.

BRAIN SURGERY IN EPILEPSY*

By GEORGE WOOLSEY, M.D.

Surgeon to Bellevue Hospital, Professor of Anatomy and Clinical Surgery in the Medical Department of the New York University

I WILL limit my remarks in the discussion of brain surgery to those cases where epilepsy is the only or the principal condition for which an operation is undertaken.

Most of the cases of epilepsy on which I have operated were of traumatic origin or had a history of traumatism. In two cases the epilepsy was associated with imbecility from childhood, together with a paretic, contractured, and atrophied upper extremity which in one case presented athetoid movements. Besides these two cases of epilepsy associated with imbecility and paresis, I will refer here to six cases of traumatic epilepsy which have come under my care during the past three years. All but one of these cases I have operated upon at Bellevue Hospital, and in most of them I have had the benefit of the advice and assistance of Dr. E. D. FISHER. One of these cases is referred to in STARR'S "Brain Surgery"; another was published in the *Medical Record*, June 22, 1895; the others have not been published.

On analysis of the six traumatic cases we find briefly: (1) That in four out of the six cases the injury was severe enough to produce fracture, and in all unconsciousness; (2) that the epileptic attacks commenced at periods varying from a few months to seven and a half years after the injury; (3) that in the majority of cases the convulsions became more severe and frequent in spite of medical treatment, although in two of the cases the convulsions became temporarily less frequent and severe and even ceased altogether for a time, only to recur later; (4) that the convulsions began with a well-marked motor aura in one hand in four cases, in the other two cases the operation was located by the site of the injury; (5) that in all cases the epileptiform seizures were severe enough to produce unconsciousness; (6) that the mental condition was becoming weak, in some the memory was failing, and in others great irritability of temper had developed; (7) that on examination the scar of a previous operation or operations was present in four cases, a tender cicatrix was present in another case, and in only one was there no evidence of a former injury; (8) that all kinds of medical treatment were employed in each case for a considerable length of time, not only without success, but with a progressive decline in the general and mental condition.

As to what was found on operation: (1) The skull in four cases presented the opening or openings of a previous operation, in one case it was locally thickened, and in one case presented a superficial scar of great density. (2) The dura was very firmly adherent to the scalp opposite the openings in the skull. It was much thickened in two cases, one of which presented no complete fracture of the skull; in one

* Read before the Medical Society State of New York, January 23, 1896.

case it was pierced by a spicule of bone from the inner table of the skull, and in only one did it appear normal. (3) As to the pia and the brain, there were adhesions between the dura and pia in two cases; in one case there was a large cyst of the brain connected with the lateral ventricle. In another there was a small cyst on the brain surface beneath and around a spicule of bone; in one case the brain seemed to be under considerable pressure, and in only one case did it appear absolutely normal. (4) After the operation there were often one or more convulsions within the first few days, due apparently to the irritation caused by the operation.

As to the two cases where irritability was associated with epilepsy, both commenced in childhood, one of them following one of the diseases of childhood. Both commenced with general convulsions, followed by hemiplegia. In both there was partial recovery of function of the lower extremity, while the upper remained atrophied, contracted, and paretic.

In one case there were athetoid movements in the upper extremity, in the other, where the right upper extremity was affected, speech was an effort. Notwithstanding medical treatment of all kinds, the convulsions increased in number and severity and varied from one or two a day early in the first case to twenty or thirty in the second case. Their mental condition was weak and imbecile, and one case was very religious. On operation the skull was found in one case enormously thickened, varying between three-fourths and one inch in thickness, and the brain beneath it was porencephalic. In this case there was some improvement as long as the cyst was drained, relieving the intracranial pressure indicated by the weak pulsation of the brain and its hard, board-like feeling on pressure. But he left the hospital little or no better than he entered it. This case had several convulsions soon after operation, but the second case, in which a portion of the cortex was removed for the athetoid movements, had no convulsions as long as the resulting paralysis lasted. When, after one month, motion returned in the area paralyzed the athetoid movements recurred and soon after the epileptiform convulsions again returned, but they were mild in character and much less frequent. Looking at the results of these eight operations it must be admitted that they are not very favorable or encouraging.

One case with typical Jacksonian epilepsy, in which a large cyst connected with the lateral ventricles and reached the surface in the frontal region was drained, died thirty-six hours after operation, with very high temperature. There were no visible evidences of infection, and the question arose as to whether the pyrexia could be due to a disturbance of the heat center from the change in the intracranial pressure following the drainage of the cyst. Not long before, Dr. ABBE reported a similar result. One other case died within a week after the operation, although he made a fair recovery and ran an aseptic course. The operation was responsible for

this result, apparently, only on account of the hemorrhage, which was by no means excessive, but the loss of blood was badly borne. The mortality in these eight cases is unduly high, but the total number is too small to compute it on; an equal or greater number might readily follow these eight cases without another fatal result. Of the other cases two were not improved at all, one was improved until he was lost sight of three or four months later, one was markedly improved temporarily and still shows (two months after operation) a less decided improvement. Another case has been operated on too recently to judge of the results, and only one case may fairly be said to be cured.

Yet in judging of the results, it is only fair to remember how hopeless these cases were. In every one, medical treatment had been thoroughly tried and failed, and in each case the mind was becoming affected, and the necessity of an asylum was only a question of time. Three of the six traumatic cases had already been operated upon for the epilepsy, without benefit. And as the case which may be considered cured belonged to the latter class, it may justly be wondered at that the results were so good. The case in which a cure resulted was that of a boy who, having received a severe fracture of the skull nine years before, had had for one and a half years general epileptiform seizures, which had increased in number and severity. His memory had become so poor that he had to be taken from school, and his temper was becoming ungovernable, and he was decidedly stupid. He had already been operated on by trephining, with only temporary benefit. Directly after the operation, three years ago, he had a number of convulsions, and after that only on two occasions for six months. He was very noticeably brighter, and his memory and temper were very much better. He is now an elevator boy earning his living, and has had no convulsions for a year and a half. During this time he has taken no medicine.

It is too early to judge of the second case of epilepsy with imbecility and paresis, although it is noticeable that, while before operation he was very unmanageable, now he gives no trouble. Before operation his attacks averaged from twenty to thirty a day, and were not controlled by bromides. Now they may number from one to three a day, and he often goes one to three days without having any.

The statistics undoubtedly are strongly against the operation. Many cases already reported as cured or much improved have relapsed, leaving almost none to encourage us to continue operating in such cases.

But if we have one such result as that above indicated in six or even sixty otherwise hopeless cases, are we not only justified, but morally bound, to give these unfortunate patients the chance, however slim, of a cure or even an improvement? Improvement short of a cure, especially if it be permanent, is more than we can promise them in any other way. It may be said that the cases should be more carefully selected, but it seems to me that cases like the

above, which are otherwise hopeless and have the history and signs of an injury or a localized aura at the beginning of an attack, justify and call for an attempt to cure by operation. A fatal result of an operation is no worse than their outlook otherwise is. We therefore continue to operate. This being our position, let us turn to the technique of the operation, in which many radical changes have been made, many details of which are of interest and importance.

In three of the eight cases to which I have referred I used the trephine, but in all other cases during the past three years I have used the bone-flap method, in which the scalp, pericranium, and bone together form the flap.

According to my own observation hemorrhage forms a principal element of shock, even in these operations on the skull. This was impressed upon me by one of the two cases which terminated fatally. Therefore I have for some time made a regular practice of placing a line of stout interrupted silk sutures through the scalp, overlapping one another just below the base of the flap, before commencing the incision. This materially lessens the hemorrhage, and thereby the shock, and, if necessary or advisable, might be carried around the proposed flap at a little distance. These sutures are of course removed after the flap incision is sutured. The base of the horseshoe flap is naturally directed downward toward the blood supply, and its ends are nearer together than its greatest breadth. The size may vary according to requirements. I have made them as large as $2\frac{1}{2}$ by $3\frac{1}{4}$ in., and they may be larger. After incision of the periosteum, of the shape and size of the flap of scalp, which may have slightly retracted, it is turned back for $\frac{1}{4}$ in., and the chisels applied. For this purpose I have found nothing better than a V-shaped wood-carver's chisel, such as I show you. I have used the Hartley chisels as well, but find them no better, if as good, to my own taste.

One point should be emphasized as to the sharpening of the chisels, and that is that they should be ground on their upper surface within the groove, and not on the outside. This was illustrated in the case reported cured, where the chisels, ground as usual (externally), had to be held more vertically in order to cut, and such an amount of the force of the mallet blows acted as a direct blow on the skull that the patient suffered from well-marked concussion for three or four days after the operation. The question has been raised as to which is the better instrument for cutting these bone flaps, the chisel or the saw. The chisel has been objected to on account of the fear that the mallet blows would cause shock. If the chisels are properly ground, as I have indicated, or the Hartley chisels are used, I think this fear is groundless. Very little force is required in the blows of the mallet, and in my own experience I have never observed intermission of the pulse or marked shock resulting from the blows. There is sometimes quite free bleeding from the diploë, and this, rather than the blows of the mallet, may be re-

sponsible for the slight shock sometimes observed. I have yet to see the saw that in the adult skull will work better, or even as well, as the chisel. To my mind, cutting by the saw is more blind than by the chisel, unless the skull is first trephined in two or more places, and I can cut the bone flap as rapidly as I can make two openings with the trephine. I have cut one bone flap $2\frac{1}{2}$ by $3\frac{1}{4}$ in. where the skull was $\frac{3}{4}$ to 1 in. in thickness in a comparatively short time.

One point needs to be emphasized in these bone-flap operations by means of the chisel, namely, that the inner table should be cut through at both ends of the incision at either side of where we are to break the hinge. If this is done the hinge breaks smoothly across, otherwise raggedly. Except at these two points it is not necessary to chisel through the inner table, save at the middle of the flap, where we wish to insert the elevator to raise it. This has been proved by experience in operations and on the cadaver. Of course, if desired, the inner table *may* be divided throughout, but it *must* be divided at the points indicated. Dividing the dura about $\frac{1}{4}$ of an inch from the edge of the part of it exposed allows us room for suturing later. In two cases Dr. FISHER has verified the exposure of the required part by a weak electric current passed between two electrodes separated by about $\frac{1}{4}$ of an inch. In the last case in which this was done I removed an inch square of the cortex containing the motor center of the wrist and hand in which there were athetoid movements.

HORSLEY practiced a similar excision of the cortex for the same purpose in an operation witnessed by Dr. STARR last summer. In HORSLEY'S cases, as well as my own, the resulting paralysis was only temporary (the neighboring parts of the brain assuming the functions of the part removed). In my case motion began to return to paralyzed part in thirty-two days. With recovery of motion the athetoid movements began again, and a week later the first convulsion occurred. These have occurred at the rate of one to three a day, one to three days often intervening without any convulsions, and they have been milder in character. I cannot see the advantage of cutting out a cortical scar, for it would only mean that another and probably larger scar would take its place and cause as much and more irritation than the first scar, and the patient would not gain thereby except for a brief interval. Furthermore, I do not think any good results from breaking up adhesions between the dura and pia, for these rapidly reform unless some foreign substance is placed between, which may very probably be quite as irritating as the adhesions. There are thus natural limitations in brain surgery in spite of the most ingenious devices. I do believe, however, that a cortical scar is better than unhealthy, irritable brain tissue. In a similar case of athetoid movements on which, or on the cause of which, the convulsions depend, as in this case, I would advise the removal of a larger area of cortex, with the hope

that function or at least the athetosis would not return, for the limb in this case was paretic, atrophied, contracted, and generally useless. In removing the area of cortex I ligated the three or four vessels of the pia which supplied it, passing the ligature with a curved needle, and then the excision of the cortex was almost bloodless.

In two or three cases, where the dura was locally very much thickened, I have excised it without producing either a good or bad result, and I do not believe that a moderate or even considerable thickening of the dura is necessarily a cause of the irritation producing the convulsions. The pericranium is brought together over the flap by a number of interrupted sutures.

The advantage of the bone-flap method over trephining with enlargement of the opening lies in the large area of the surface which may be readily exposed. This was well illustrated by the case which I have reported as cured. Here a previous trephining had been done for the cure of the epilepsy, and a spicule of bone nearly one-half inch in length had not been found. This spicule penetrated the dura and pia and was surrounded by a superficial cyst of the size of a hazel-nut. The removal of this spicule and cyst was evidently what led to the cure.

But besides the exposure of a large area there is the additional advantage that this may again be covered by bone, which protects the brain from injury and prevents the adhesion of the scalp and dura. How well this replaced bone flap heals in place was beautifully illustrated in the first case operated upon, where imbecility was associated with epilepsy, in which Dr. FISHER had the opportunity of examining the skull and brain after death, eighteen months later. The flap, about an inch thick, was firmly and evenly healed, and presented a perfectly smooth inner surface along the line of incision. More than this, the dura, which had been incised, turned back, and then sutured, was perfectly healed, and there were no adhesions between the bone and dura, or between the dura and pia, which further testifies to the possibilities of this method. In another case the scalp and pericranium were accidentally pulled from the bone flap by the retractors, yet the bone flap healed perfectly.

The bone-flap operation is applicable not only to cases of epilepsy, but to almost any operation on the brain or its coverings—to operations for tumors, cortical or cerebral hemorrhage, removal of the Gasserian ganglion, abscess, cysts, etc. In the latter two classes an opening for drainage may be made by the rongeur at any part of the circumference of the flap, or by the trephine through the body of the flap.

One lesson, it seems to me, is impressively taught to the surgeon by these cases of traumatic epilepsy, namely, the necessity and importance of thoroughly treating cases of fracture of the skull at the outset. I think that we can do more in this manner in the way of prevention than we can do later in the way of cure.

New York; 117 East Thirty-sixth street.

PUERPERAL ECLAMPSIAS

By FRANK EDMONDS COUDERT, M.D.

BLEEDING in puerperal eclampsias has for many years been recognized by the profession as a most valuable therapeutic agent, although for some years past it has been forced to take a back seat. The following case, which I take pleasure in being able to report, may help to place it in a better position with the medical profession.

Mrs. H. W. F., aged 24 years, had always been well. She was one of a large family, all of whom were in good health but one sister, who died from puerperal eclampsia a few years prior to Mrs. F.'s confinement.

On September 26, 1895, at 5 p.m., she was taken with labor pains, with an interval of about thirty minutes. It was at this stage that I was sent for. I found her to be a woman of medium size and build and of a very nervous disposition. Her approaching confinement caused her more apprehension than is usually shown. On examination the os was found to be somewhat rigid, dilatation having not yet occurred.

I gave her thirty grains of bromide of soda and eight grains of chloral, and left her with the assurance that I should be on hand when needed.

At three o'clock on the following morning I found her in active labor. The fetal head was well down and presenting normally. Pains were quite strong and succeeding each other rapidly. There was one thing concerning her pains which struck me as somewhat singular—they resembled cramps in the stomach more than the bearing-down pains of labor. In spite of the instructions from both the nurse and myself, she was apparently unable to utilize them. Finally, chloroform was administered, and the child was born one hour and a half from the time of my entrance into the house. The placenta came away, normally and intact, fifteen minutes after the birth of the child. My patient soon fell into an easy and refreshing sleep, and in this condition I left her.

The following morning I saw her and she was doing nicely, having spent a good night; pulse, normal; temperature, 100°. At 3 o'clock in the afternoon of the day following her confinement, I was called post-haste to see my patient. Arriving there a very few minutes after receiving the message I found her in her second convulsion. Her face was very pale, her lochia stopped, respirations somewhat rapid and shallow, soon becoming stertorous.

I gave her $\frac{1}{4}$ grn. morphia hypodermatically, and followed it with 15 grn. chloral and 30 grn. bromide of potash per oram. One hour from this, the same dose was repeated. The convulsions were now becoming more severe and the coma more profound. Consultation was advised, and the consulting physicians recommended only larger doses of the morphia to be given.

This advice was carried out, and at 2.30 a.m. there was a marked change for the worse. The

convulsions were coming with 15 minutes' intervals. The pulse was growing rapidly weaker, and my patient's face was somewhat cyanosed. One thing was quite evident in my mind: something must be done, or my patient would die.

Against the advice of the consulting physicians, who thought she had been bled sufficiently through natural causes, I resolved to bleed. Having once made up my mind to use the lancet, I lost no time in drawing two pints of blood from her arm.

The good effects of the bleeding were manifested by steadying the pulse and respirations. The convulsions were stopped, and one hour from this time she regained consciousness, and made a rapid and uninterrupted recovery, and is to-day a perfectly well woman.

In six hours she had $1\frac{1}{2}$ grn. morphia, and at no time were her pupils contracted. On examination of the urine no traces of albumin were to be found.

Middletown, Conn.

A CASE OF ACUTE MANIA FOLLOWING OPERATION FOR LACERATED CERVIX AND PERINEUM *

By HOMER B. SPRAGUE, M.D.

THE patient, aged 24, was very nervous and hysterical at the least provocation and had had chorea in childhood. Her family history was good, both her father and mother being alive and in the best of health, although the father is a very excitable and nervous man. She had been delivered of a healthy girl about two years previous to my acquaintance with her, at which time she suffered a double laceration of the cervix and a deep, irregular laceration of the perineum clear down to the sphincter.

A second child, a boy, was delivered by me without difficulty, and she made a rapid recovery. I suggested to her the advisability of repairing the damage done to her cervix and perineum by the previous labor. To this she finally consented after eight months of thought and constant pain and ill feeling to remind her of her condition.

On the 25th of October, 1894, I operated on her, assisted by Drs. ALVAREZ and F. A. SPRAGUE, sewing up her cervix and perineum under the most careful aseptic and antiseptic precautions. She was under ether one hour and twenty minutes, and had emerged from it fully and completely on my return in the evening. The temperature was then normal. The next few days were without any special symptoms until the sixth day, when she began to complain considerably of the stitches in the perineum and had a very restless night, but was quite comfortable on my arrival in the morning.

She continued to complain, and at times became very hysterical until the eighth day, when I removed the stitches from her perineum. They were in good order except one, a small superficial, around which there was about one drop of pus. Her morning temperature at this time was normal, but in the

evening it went up to 100° . She still continued to be very restless and very hysterical. On the tenth day her temperature went up to 101° , pulse 106, respiration 32, and she continued very restless and hysterical. On the eleventh day I removed the stitches from the cervix, and all were sound, and no pus was discovered anywhere. She continued to grow more and more restless and hysterical until she became almost unmanageable, and her case took on more of the character of a mania than of hysteria, and she became wild and raving, requiring the constant attendance of two trained nurses. An eminent specialist saw her at this time and made a very careful examination; but he found nothing that would account for all of this trouble, either locally or centrally.

She was also curretted by him, at this time, with a negative result. He advised that those methods of treatment be pursued which would have an effect to quiet her and to produce a refreshing sleep.

This was done, but in her waking intervals she continued her wild maniacal screechings and efforts to get away from her attendants. She had, however, intervals in which she would be quite rational, and would know those about her.

Another gentleman, eminent in mental diseases, saw her at this time and examined her very carefully. In the examination of her eyes he found her pupils dilated and the retina greatly congested, but was in doubt as to the cause of all this mental disturbance.

Still another specialist saw her a few days later, but could not locate any collection of pus or come to any definite conclusion as to the cause of the mental disturbance. He stated that he had had only one such case that he could recall in his practice following so simple an operation, although they were quite common after a laparotomy or other major operation. Her temperature continued to range from 99.2° to 101.8° during this time.

On the 18th day after the operation, she menstruated; this lasted three days, and was normal in amount.

On the 20th day her temperature went up to 103.4° , pulse 115, resp. 40, and remained there until the 26th day, when it dropped to 101° without any medication or application of cold pack, which she had been having while her temperature was up to 103° and over. I would say here that the pack had a very quieting effect upon her, and she would sleep and rest quite well after each pack and was again rational and knew those about her.

This condition, however, only remained one day, and the temperature again arose to 103.4° , pulse 120, resp. 36. On the 29th day after operation her temperature went up to 105.2 (pulse 120, resp. 40), and varied between 105° and 106.4° for 29 hours. At this time I varied the method of reducing the temperature from the cold pack, which seemed to have lost its effect, to the ice-water and alcohol drip-bath, which proved quite successful, and after a few hours reduced the temperature to 101.2° .

* Read before the Lenox Medical and Surgical Society, Jan. 23, 1896.

This condition lasted only about two hours, the temperature rising to 105°, and varying between 102° and 105°, under the baths, throughout the whole time, until the 51st day after operation, when the temperature again arose to 106° (imperceptible pulse, respiration 72), and death took place.

The patient, during her whole illness, took a large amount of nourishment, consisting principally of milk and eggs. Her bowels acted well and normally until she became fully unconscious, about the 18th day, when she lost control of her sphincters. Urine was examined, with a negative result.

Her treatment consisted of nerve sedatives, heart stimulants, and sustaining measures with the cold packs and baths.

This patient never had a chill or a chilly sensation. The only pus found was one drop about a very superficial stitch. She had none of the appearances of a patient with sepsis; her lips and skin were of good color almost up to the time of her death.

Now, was this a case of acute mania and meningitis, due to her sensitive nervous condition? Or, should we throw out entirely the nervous condition of this patient as a cause of her trouble, and set it down as a septic case pure and simple? If septic, was there sufficient pus about this single suture to have caused the above-described trouble, there perhaps having been some absorption and reproduction of the "infective matter" in the system? Further, in case of sepsis, do we have such violent delirium?

New York; 1383 Lexington avenue.

THERAPEUTIC ITEMS.

Treatment of Remittent Malarial Fever.—KLEIN (*Ther. Gaz.*, XIX, p. 748)

K. has carefully studied malaria as seen in the tropical climates. There the remittent form of malarial fever is very common. It occurs in two forms: the mild and the grave, according to the intensity of the symptoms. The particular features are icterus and hematuria. They begin in a similar manner to the intermittent—with a chill very violent and long continued. After the chill is over the patient does not feel the relief experienced in the intermittent form, the prostration is great, and the patient feels very ill. After a length of time, varying from hours to days, there is a second attack. The icterus does not appear till the second crisis; then it begins in the face and gradually extends over the whole body.

In treating this form two ends are kept in view: to combat the toxic agent and to relieve the system of the products formed by the destruction of the red blood corpuscles. The first is accomplished by administering quinine hypodermatically, since the patient cannot retain it by the mouth on account of vomiting. The dose should never be below 30 grn., and larger doses may be needed. The disembarassment of the system is to be accomplished by the use of salines and purgation. They are, however, liable to produce vomiting. Calomel is the preferable drug. Administered in fractional doses it produces at the

end of five or six hours abundant stools. In conjunction with this, enemata should be employed twice daily. Iced champagne often relieves the vomiting. Bleeding should not be employed, unless it be local and slight in amount in case of lumbar pain.

The author asserts that the dangers of the recurrence of all forms of malaria are best guarded against by the quinine treatment.

Potassium Iodide Internally in Soft Chancre.—

A. I. LANZ (*Med. Week.*, 1896, IV, p. 108)

It has been observed by the author on several occasions that when a soft chancre proves refractory to local treatment, the ulcer heals rapidly if potassium iodide, in doses of from 1.3 to 2 gme. (20 to 30 grn.) daily, be administered by the mouth, the only topical application required in this case being a borated dressing. This result has been obtained not only in patients suffering from tertiary syphilis, who had contracted soft chancres transformed later on into serpiginous ulcers—cases in which the action of potassium iodide is not surprising—but also in patients who had never had syphilis. There can be no doubt of the correctness of the diagnosis of soft chancre, arrived at by Dr. LANZ, judging from the characteristic peculiarities of the ulcers, more particularly their multiplicity, their association with suppurating buboes, and the discovery of Ducrey's bacillus in the secretions of the wounds.

However, the Doctor's observations are not sufficiently numerous to permit of determining whether potassium iodide exerts on *all* soft chancres the powerful curative effect in question, or whether certain varieties of this affection are peculiarly sensitive to the action of the drug.

Toothache Drops.—The following is a carefully selected collection of formulas for toothache drops:

- 1.—Oil Cajeput (rectified),
Oil Cloves of each, 1 vol.
Chloroform 2 vols.
- 2.—Camphor 2 dr.
Choral Hydrate 2 dr.
Triturate till liquefied; then add
Spirit Peppermint to make 4 fl. dr.
- 3.—Oil Cloves,
Tinct. Cannabis Indica,
Chloroform equal vols.
- 4.—Oil Peppermint,
Spirit Ether,
Tincture Opium equal vols.
- 5.—Menthol 2 dr.
Ether 4 fl. dr.
Oil Cloves 2 fl. dr.
Fl. Ext. Aconite 1 fl. dr.
- 6.—Fl. Ext. Jamaica Dogwood 16 fl. oz.
Oil Peppermint 20 min.
Ether 1 fl. oz.
- 7.—Creosote 2 vols.
Chloroform 2 vols.
Wine Opium 4 vols.
Tincture Benzoin 1 vol.
- 8.—Oil Eucalyptus 1 fl. dr.
Mastic 2 dr.
Camphor 1½ oz.
Morphine (alkaloid) 1½ dr.
Chloroform 2 fl. oz.
Alcohol to make 5 fl. oz.
- 9.—Camphor 1 part
Chloroform 9 parts
- 10.—Oil Cajeput (rectified)
Tincture Opium equal parts

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A WORD OF ADVICE.—The BULLETIN expects to be damned with faint praise for what it is going to say, but the facts are clear to all who will see, and the duty it owes to the profession at large calls for its appearing in that ever-ungracious rôle of the giver of unasked for advice. Why should the American Medical Association cling to that figment of the imagination, the so-called code? Why should it not fall in line with the profession at large in being governed by the real code which exists in the State of New York, and under which the profession has worked and lived satisfactorily and ethically since 1881?

Where, pray, are the chief sinners against the so-called code if not in the ranks of the American Medical Association? Who constantly affix their names to proprietary remedies? Who meet so-called irregulars in consultation? It is our belief that, notwithstanding the existence of the code, many members of the American Medical Association are constantly doing that in secret which they are forbidden to do. Everyone who sees the advertising columns of the medical press, and who does not throw into the waste-basket the numerous circulars which daily reach him from proprietary medicine manufacturers, knows that some of the most shining

lights in the American Medical Association constantly affix their names to proprietary medicines, and, beside this, stake their reputations on the value of combinations, which, whatever the names under which they appear, differ but little, if at all, in action from well-known and officinal drugs.

If these things are tolerated, why should not the Association throw off the guise of a flimsy code which carries no moral weight with many of its members, or, in case it still insists on retaining the so-called code, why not discipline the offending members? Far better is it to possess a code which professional men will live up to, such as that which has guided the profession in the State of New York for nearly fifteen years,—that is to say, the majority of the profession,—and which, so far as the BULLETIN can see, has not tended to lower moral tone or to lead to an increase in acts which the higher code condemns. It must be apparent to the influential members of the American Medical Association that the profession in the State of New York does not propose to take a step backward and stultify itself by re-adopting a code which it threw overboard for the reason that it was impossible to enforce it and because the dictates of humanity called upon medical men to meet in consultation *for the good of the patient* any man, of whatever sect or creed, who possessed the legal qualifications. A careful canvass of the country will show that, while there are many sinners outside the Association, there are more and worse within it.

The solution of the question is to do away with a code which cannot deter and which cannot be enforced, and for a united profession to bring to bear on these sinners the immense force of that sentiment which teaches to "do nothing in secret which will not bear the light of day." The professional man who pretends to live up to a code and yet breaks it, reminds one of the "devil who a monk would be, his wickedness shining through his robe of sanctity."

AN IMMENSE POLITICAL MACHINE.—Startling and ominous news comes to us from Albany regarding the bill before the State Legislature providing for a codification of the laws relating to lunacy. The lunacy laws of the State had been altered, improved, and enlarged since 1889, until a concise revision and a codification had become desirable. But such a result was not the ultimate end and aim of the present legislation; for after the bill had been progressed rapidly, an amendment was very quietly and adroitly made by the Assembly Committee on

General Laws, and the bill as amended passed the Assembly on April 23.

The following was the original form of Section 31 of the bill:

Managers of State Hospitals and Their Terms of Office.—Each State hospital shall be under the control and management of its present board of managers or trustees, subject to the powers of the commission, and to the provisions of this section as to the modification of their terms of office and the number of such trustees. Such trustees or managers shall hereafter be termed managers. On or before the first Tuesday in January after this chapter takes effect the Governor shall modify the terms of office of the managers of each State hospital then in office, so that the term of office of one manager shall expire on the 31st day of December of such year, and of each year thereafter. If in any such State hospital the number of managers be more than seven no manager shall be appointed therefor until such number be reduced by expiration of term to less than seven. Thereafter the number of managers shall be seven, and the term of office of the manager appointed to fill the vacancy caused by such expiration of term shall be seven years. If a vacancy occur otherwise than by expiration of term, the appointment of a manager to fill such vacancy shall be for the unexpired term of the manager whose office became vacant. If, in any State hospital, there are less than seven managers in office when this chapter takes effect, the Governor shall appoint managers to make up the number of seven, and on or before the first Tuesday in January after this chapter takes effect he shall classify the managers of such hospital so that the term of one manager shall expire on the 31st day of December of that year, and each year thereafter.

As amended and as passed by the Assembly the section runs as follows:

Managers of State Hospitals and Their Terms of Office.—Each State hospital shall be under the control and management of its present board of managers or trustees, subject to the statutory powers of the commission, and to the provisions of this section as to the modification of their terms of office and the number of such trustees. Such trustees or managers shall hereafter be termed managers. On or before the 31st of December after this chapter takes effect, and at which time the terms of the managers then in office shall expire, the Governor shall appoint a board consisting of seven members for each State hospital by so arranging terms of one, two, three, four, five, six, and seven years that a term shall expire on the 31st day of December in each year, beginning with the year 1897. If a vacancy occur otherwise than by expiration of term, the appointment of a manager to fill such vacancy shall be for the unexpired term of the manager whose office became vacant; but the provisions of this section shall not apply to the Middletown State Homœopathic Hospital at Middletown, in the County of Orange, where the number of managers shall be 13.

In short, the Governor is empowered by the bill to remove any or all of the managers of the State hospitals for the insane (except Middletown) "on or before December 31" next. There is no known case of incompetency or of recalcitration among the boards of managers at present. Should such a condition exist, the State Commission in Lunacy has shown that it has the power and the disposition to deal promptly and impartially with it, as in the notorious case of the high-handed managers of the Hudson River State Hospital in 1893. No one has heard of any great abuses which need rectification by any such radical measure as the removal of one or all of the members of a board of managers.

The matter seems to bear but one interpretation, namely, that the "bosses" are to gain control, in this way, of an organization which may become a gigantic political machine, with patronage amount-

ing to thousands of paid positions, and with the control of an annual expenditure of \$4,500,000. No party can be trusted with such absolute control. Partisan government in such cases is always disastrous.

Several years ago the Kings County Hospital was under vicious partisan control. The medical superintendent was shorn of almost all authority; miserably ignorant and entirely inexperienced nurses were employed; persons were put upon the pay-roll upon the order of any member of the County Commission, or any prominent politician of the party then dominant; the notorious John Y. McKane was allowed to order the admission of patients in direct contravention of the rules of the hospital; assistant engineers were appointed, who had no engines to run; drunken attachés were provided with salaries; the cost of the food was forced down to less than 73 cents a week for each individual. There was no redress possible.

What is to prevent a similar result in the State hospitals, if the bill under consideration becomes a law, and the State Commission in Lunacy is later controlled by the same growing power? We can only hope that this bill will fail of becoming a law by the Governor's veto. We can but put upon record our protest against a most shameful legislative procedure, ordered by unscrupulous "bosses." We regret that our noble Empire State should set such an example to her sister States in dealing with that unfortunate class—those who have lost their reason and in consequence are no longer able, rationally, to protest in their own behalf.

May the great Power that wisely rules the universe inspire our Governor to veto this disgraceful bill now before him for approval or disapproval!

THE CORONER AND SECRECY.—While the BULLETIN has frequently had occasion to find fault with the abominable system of coroners, which, for reasons best known to itself, the present Legislature will not abolish, it is as quick to praise where praise is deserved. The position taken by one of the recent appointees to this unsavory office, that it is his duty to hide as far as possible instances of suicide from public view, seems to the BULLETIN to be the correct one. Of what possible utility can it be to cater to the morbid taste of a certain proportion of the public by allowing the reporters of the daily press to comment with all the details on instances where an individual has taken his life, thus often laying bare family skeletons which are no concern of the public and adding to the grief of the

relatives of the one who, under the stress of an insane impulse, takes his or her life?

As a matter of fact the lay press—in particular that portion which deals in sensations—should be restrained in every possible way from dwelling, not only on suicides, but also on murders and other unnatural occurrences. Crime and the reports of crime too frequently breed crime among the neurotic and sensation-loving portion of our population. The horrid details associated with the report of a suicide or a rape or a murder had better, for the good of the community, be suppressed. So long as adequate punishment is inflicted for the one or the other crime, and since the voluntary taking of life, known as suicide, carries anguish of a most bitter type into the family in which the occurrence has taken place, what possible good is accomplished by having the details spread in the columns of the public press, too often associated with glaring headlines?

The BULLETIN is aware that the suppression of evidence lays the official open to the suspicion of improper motive, but it believes that the type of men who nowadays become coroners, whatever their delinquencies in other respects, are above reproach of such a character. Obviously it is necessary to make a record of the occurrence of a suicide, but this should remain a matter of confidence between the coroner's office and the family in which the deed has occurred, and the employees of the office should be instructed to keep the news private on pain of dismissal from their position. When the law under which criminals are now executed in the State of New York was passed, one of the provisions was that the public press should not be allowed to print the revolting details which were associated with executions under the old law. Such a provision was a good one, and we believe that it is in the line of public policy also to keep from the press the details of cases of suicide.

If such a course be recognized as the rule, the temptation of offering a bribe for the purchase of secrecy will not exist, while under the present system of public record the rich man might find the venal official.

BALLOONING THE BLADDER.—Dr. J. G. CLARK, in the Johns Hopkins Hospital *Bulletin*, says that if the acute inflammation is not soon relieved in cases of cystitis the bladder remains contracted, the mucous membrane becomes congested and thickened, new connective tissue is formed in the vesical walls, the rugæ are much more prominent than normal, and

the intervening sulci conceal septic matter which cannot be reached by irrigation, as, the moment the fluid begins to distend the bladder, such acute pain is produced that the bladder contracts with great force and prevents it even coming in contact with the deeper parts, much less washing away or rendering innocuous the concealed pus. This is plainly seen by the frequency with which small quantities of urine loaded with pus, desquamated epithelium, and other products of degeneration escape from the catheter after the most careful vesical irrigation.

In order to overcome this the vesical balloon has been suggested, by means of which the bladder is distended, the rugæ are smoothed out, and all the inflamed and infected areas are brought in contact with this carrier of the medicinal agents. The apparatus employed consists of a small balloon made of thin rubber 6 ctm. in diameter when collapsed, connected with a thicker rubber tube 26 ctm. in length, with a small cut-off valve or clip to retain the air when the bag is inflated. These bags can be inflated to about the size of a well-filled normal bladder. The balloons are made of a thin rubber tissue, and if not carefully preserved are soon destroyed. They must be carefully washed after using, must be partly dilated to prevent the sides from adhering, and they should be allowed to dry thoroughly.

Before using, the balloon should be well boiled and placed in a boric-acid solution or in sterilized water, and its capacity should be accurately determined by making an exact record of the amount of air required to fill it. This is essential to prevent over-distention of the bladder. In order to apply the balloon the patient is placed in the knee-chest position and a No. 10 speculum is introduced after efficient cocaineization of the urethra. No discomfort is experienced usually until the end of the speculum impinges on the inflamed mucous membrane of the bladder. The gelatin-ichthyol, or gelatin with bismuth, salicylic acid, or other preparation is prepared while the patient is being placed on the table, by being placed in a water-bath until the gelatin is reduced to the consistency of cold olive oil. In this state it adheres readily to the walls of the balloon, which is immersed in the gelatin solution and then rolled between the forefinger and thumb, exactly as in rolling a cigarette. This is then covered with the semi-fluid gelatin until it has the appearance of a suppository. It is then grasped by a slender pair of forceps, inserted into the bladder, released, and gradually distended with air, which causes considerable pain and desire to micturate. The dilatation should occupy from three to five minutes. The balloon should

be left in position for from fifteen to twenty minutes, which is the limit of safety, because of the occlusion of the ureters while the balloon is in position. The removal is readily effected by removing the clip and allowing the air to escape, and then aspirating the remaining air by means of the air-pump or the aspirating syringe. It can then be easily drawn out through the urethra. CLARK reports ten cases successfully treated by this means.

MEDICAL INSPECTION IN BOSTON SCHOOLS.—The experiment of daily medical inspection of the public and parochial schools of Boston, with official supervision over the isolation and discharge of all cases of diphtheria and scarlet fever which are treated at home, has now been carried on for one year, and the results have recently been made public in the columns of the *Boston Medical and Surgical Journal*. The method followed is simple and thorough. The city is divided into districts, each averaging four school buildings and 1400 scholars. Visits are made to the schools each morning by qualified physicians, whose honorarium is at present nominal, and such children as have appeared to the teachers to be ill are brought to their notice. If the children are really sick they are sent home, and if the case be contagious the Health Board is notified.

The results of this inspection are very interesting. The total number of children examined was 14,666, of whom 9188 were sick and 5472 not sick; of the former, those ill enough to be sent home were 1745. Among the really sick children 437 cases of contagious or infectious diseases were detected: diphtheria, 70; scarlet fever, 26; measles, 110; whooping-cough, 28; mumps, 43; pediculosis, 66; scabies, 42; congenital syphilis, 8; chickenpox, 34. Attention is justly called in the report to the advantages to the general public from this prompt exclusion from the crowded schoolrooms of these contagious cases. Among the non-infectious diseases, the list of which is too long and varied to be repeated here, no less than 5689 were acute or chronic affections of the respiratory organs, and in over 5000 of these the trouble was located in the throat.

Another year it is designed that cultures shall be made from all suspicious throats before they leave the school building. Supplementing the above work of school inspection, the Board of Health sends daily to the district inspector a full list of the cases of diphtheria and scarlet fever reported in the previous 24 hours, and the inspector visits at their homes such as fall within his district to insure proper isolation. If this isolation is not or cannot be made

satisfactory, the Board of Health is notified and the case transferred to the hospital. Later, at the conclusion of the illness, the inspector again visits the patient before he is released from isolation and allowed to return to the classroom. The method adopted in Boston seems to be an admirable one, and the joint action of the medical inspectors of the schools and those of the Health Board, attacking as it does the question of contagious disease from the two vital standpoints of the school and the home, promises to produce important results in controlling the spread of these maladies.

COUNTER-PRESCRIBING AND SELF-PRESCRIBING.—The BULLETIN notes with pleasure that the lay press is beginning to agitate the question of self-prescribing, dwelling in particular on the dangers of taking the coal-tar derivatives without the advice of a physician. For years the medical press and medical men have been preaching the same doctrine, apparently without effect, to judge from the frequency with which cases of serious collapse, and even of death, are recorded.

While it would seem as though sufficient legislation existed to prevent druggists prescribing over the counter, it is yet apparent that the law is not enforced; else how could the laity purchase that which, even under healthy conditions, physicians use with exceeding caution? The depressing effect which almost any of the coal-tar derivatives may at any time exert on the heart should prove a sufficient deterrent to the educated pharmacist; but, notwithstanding the knowledge which he supposedly possesses, too frequently, for the sake of petty gain, he will sell antipyrin and phenacetin, or any of the other numerous "ins" without demanding that which under the law he should—a prescription from a duly registered physician.

Aside from the possible deleterious effect of these "ins" on the organism, there is a further danger, and this is the formation of the habit of taking these drugs. Headache-powders, as they are called and freely advertised, are responsible, not alone, in instances, for death, but what is worse, for the formation of a habit nearly as degrading as that which results from the habitual taking of morphine or chloral. In the county of New York, under the direction of the leading medical society, druggists are gradually being taught that the law must be obeyed, a number having recently been arrested and made to pay a heavy fine. This should be the rule all over the country, for punishment is the only way to check counter-prescribing and thus self-prescribing.

GENERAL MEDICINE

Department Editors

WILLIAM CHARLES GUTH, M.D.

and

HENRY TURNER BROOKS, M.D.

Collaborators

ADOLPH ZEH, M.D., ADOLPH BARON, M.D., JOHN HOCH, M.D., WILLIAM VISSMAN, M.D., WILLIAM Y. FINCH, M.D., GEORGE W. BLANCHARD, M.D.

Diaphoretic Methods of Treatment.—K. DEHOI (*St. Petersb. med. Wochenschr.*, No. 44, p. 373)

Being a firm believer in diaphoresis for a large number of diseases the author has constructed a hot-water bed or bath, to which the whole body of the patient is exposed for a variable length of time, leaving only the head free, and he considers such a bed as the mildest and best of all diaphoretic methods. The bed can be heated by an alcohol flame, and the temperature brought up to from 105° to 120° F., or even higher, in 15 to 20 minutes. The results are the following:

(1) A pronounced change in the blood circulation and blood dissemination throughout the body, which is combined with a diminution of the blood-pressure.

(2) An energetic withdrawal of water from the body by greatly increasing the perspiration.

(3) A decided increase of the metabolism.

The indications for the use of this method are varied, and it can especially be recommended in general edema or hydrops following kidney diseases, in anemia, and in chlorosis; also in catarrhs, etc.

Case of Primary Actinomycosis of the Lungs.—

TH. HEUSSER (*Berl. klin. Wochenschr.*, No. 47, p. 1029)

The case was that of a lady of 50 years, who had always been well, and who became ill with the symptoms of a pleurisy of the right side. There was a moderate temperature, which did not disappear after aspiration and removal of more than a pint of a clear, yellowish fluid. Examination of sputum was negative, but in spite of this a diagnosis of tuberculosis was soon made, tubercular infiltration of the right upper lobe and cavity in the right lower lobe, and she was sent to Davos. Frequent examinations of the sputum, at that place, however, led to a different diagnosis. The sputum consisted of a greenish-yellow purulent secretion, without smell and without any visible admixtures, but in which small granules were found containing bodies greatly resembling actinomycetic formations. Such actinomycetic granules were found in every specimen examined; the center of each consisted of branching hyphæ, mostly in the stage of cocci or spores. These granules were never visible to the naked eye, and were found in the sputum for months. The treatment consisted mainly in plenty of outdoor exercise and the administration of iron and quinine. The clear, pure mountain air of Davos had an excellent effect on the patient, so that in a comparatively short time she had gained almost 16 pounds, the physical signs improved, and the amount of actinomycetic sputum decreased considerably. Patient then left.

As regards the etiology in this case, there was no probability of an infection from carious teeth, since the patient had had artificial teeth for years. It is possible that it was caused by inhalation of foreign bodies containing the fungus. As in most cases, the disease commenced in the lower lobe. The symp-

toms were those of a tuberculosis with the formation of cavities appearing after an attack of pleurisy and a secondary focus in the right apex, which was probably an actinomycotic metastasis. Careful examination of the sputum alone disclosed the correct diagnosis.

Case of Primary Carcinoma of the Lungs.—

RIBBERT (*Deutsch. med. Woch.*, 1896, No. 11, p. 365)

The tumor originates in a lesser or greater circumscribed territory and grows by encroaching on neighboring tissues; but the epithelial cells of this tissue are not changed so as to become carcinomatous. In this instance the author believes that, besides spreading along the lymph channels, the epithelial cells of the primary tumor also entered the air-passages and spread along the surface until almost the entire lung was involved; that therefore, the conditions found in the alveoli are not to be looked upon as a metaplasia of the epithelium and that the carcinoma sprung from this source. Hence, the conclusion that the carcinoma originated from the alveolar epithelium is justifiable when this condition can be positively observed in the origin of the primary tumor.

The proliferation of connective tissue makes it highly probable that the carcinoma originated in a previously inflamed lung. The stroma was of cicatricial character, and endarteritis also showed an inflammatory origin. The cicatricial connective tissue enters the epithelium and isolates part of the cells, which proliferate and form carcinoma.

No irritation can so alter the conditions of growth of epithelium that it will enter connective tissue. It grows only when its normal connections are severed and it becomes transplanted in connective tissue. Thus separated from the influence of the organic whole, its innate power of proliferation is asserted.

The author thinks an important factor is that inflammations occur in tissues which have become separated (misplaced) in embryo. The manner in which the inflammation originates is immaterial so long as it lasts long enough to produce a proliferating process which penetrates the epithelium.

The Effect of Salicylic Acid upon the Mucous Membrane of the Respiratory Tract.—LUDWIG

EBSTEIN (*Wiener klin. Wochenschr.*, 1896, No. 11, pp. 187-8)

In reviewing the literature on this subject the author finds very little data at hand. The acid occurs in fine needle-shaped crystals which dissolve in 538 parts of cold water, and very readily in hot water. Latterly the amorphous powder is used in the drug trade.

The acid is a decided irritant to the mucous membrane, and especially so to that of the respiratory tract. Its application in substance produces a white eschar which persists for several hours. The inhalation of particles suspended in the air produces a scratching, burning, and tingling sensation in the throat, followed by a prolonged and violent fit of coughing. The diluted vapor of the acid produces the same symptoms.

The author treated a worker in salicylic acid. The patient was 60 years of age and had for the past two years suffered from a persistent cough during the entire day, accompanied by the expectoration of a very scanty, thick, grayish phlegm. Since April, 1895, the condition became aggravated to such an extent that marked attacks of dyspnea en-

sued which during the night often simulated attacks of an asthmatic type. These manifestations continued until September following, and were accompanied during all this time with a pronounced sensation of dryness in the throat.

At this stage EBSTEIN found the mucous membrane of the nasal cavity, pharynx, larynx, and trachea of the patient highly injected and considerably thickened, to such an extent that there was partial stenosis of the trachea induced by the presence of a gray tenacious membrane.

Physical examination of the chest revealed a bronchitis sicca and slight emphysema. The various methods of treatment were ineffectual; thereupon iodide of potash, which had been recommended by CANTANI, was employed, resulting in a diminution of the swelling and dissolution of the membrane, leaving a clean grayish-red surface. In four weeks a complete cure had been effected.

Whenever the patient returned to his occupation he was again afflicted in the same way. This occurred a number of times, and a permanent cure was effected only after entire cessation from that kind of work. The entire train of symptoms was endurable until the time of the use of the amorphous powder, when the respiratory manifestations became aggravated.

MATERIA MEDICA

Department Editor

WILLIAM FANKHAUSER, M.D.

Resorcin in Skin Diseases.—J. A. CANTRELL (*Phil. Polyclin.*, 1896, V, p. 64)

The author relates his experience with the use of resorcin, during a period of ten years, in the practice of dermatology.

In the experiments reported the following preparations were used, according to circumstances: Solutions in water ranging from 10 to 30 per cent.; solutions in collodion of the same strength as above stated; ointments ranging from 10 to 40 per cent. It was found that either petrolatum or lanolin proved the more useful ointment-base in cases in which there was not much inflammation, but in those demanding a soothing application zinc-oxide ointment proved more beneficial. Plasters were chosen in cases in which it was impossible to apply ointments or solutions, and their strength varied from 10 to 40 per cent. In cases of acne, in which the drug was applied, it was found more beneficial to make an emulsion with mucilage of acacia, or of tragacanth, and water; this application varying in strength from 5 to 20 per cent.

In some cases of increase of pigment, such as lentigo and chloasma, resorcin seemed to have a decided effect. In lentigo this was more noticeable than in chloasma, the pigment being removed without much trouble in the majority of instances presenting.

In all forms of ringworm, resorcin had the effect of killing the parasite in the majority of the cases, but it was found that some instances of this disease did not respond quickly to the treatment.

Affections of the sebaceous glands, such as acne and seborrhea, seemed to be much benefited. In those cases of acne presenting decided induration and thickening, resorcin seemed to have the power of removing the unusual collection of sebum in the follicles, and to assist in the excretion of normally formed matter. In dysidrosis and hyperidrosis this drug was also found of great benefit.

In both scabies and ivy poisoning resorcin had a curative action, but preferable remedies can, it is said, be chosen that will give the desired result more quickly. The same is true of corns and others horny growths, which were benefited greatly by the use of an ointment containing resorcin.

In pityriasis, its stimulating quality removed the scales and restored tone to the parts; in psoriasis, the remedy merely removed the scales, and it was found advisable to give internal remedies for curative results.

The results gained by using resorcin in eczema were manifested in the chronic varieties. Vesicular lesions were removed quickly, but in papular eczema the drug did not give as good results. In the pustular variety, resorcin appeared to remove the inflammation and accumulations. Eczema rubrum, and the squamous varieties, as well as eczematous conditions, attacking the flexures of the joints, were acted upon very favorably.

Epitheliomatous changes of the skin were more benefited by the use of resorcin than is the case with most other remedies.

In impetigo contagiosa, the parasite lost the power of contagion almost as soon as the drug was applied to the affected surface.

Eczematous affections of the nails yielded rapidly to the effect of resorcin. Slight hypertrophies were improved, and to some extent, at least, restored to their normal condition.

Both syphilitic and non-syphilitic ulcerations were very much benefited, whether the drug was used in powder or as an ointment. Lastly, as an assistant in the restoration of destroyed tissue, the drug is reported to have acted marvelously.

Antipyretics and Analgesics in Combination.—

BERGER and VOGT (*Med. Week*, 1896, IV, p. 96)

The authors have endeavored to ascertain whether it would be possible, by association, to diminish the toxicity of the usual antipyretics. They have thus, after numerous experiments, obtained excellent results from the following combination, which appears to answer the purpose admirably:

Acetanilid	0.5 gme. (7½ grn.)
Phenacetin	1 gme. (15 grn.)
Antipyrin	2.5 gme. (38 grn.)

Divide into eight cachets.

It is deemed useless to administer more than four of these cachets daily. This mixture has stood the test with regard to both its antipyretic and its analgesic effects, and the investigators recommend it for use in all cases in which antipyrin, phenacetin, or other antipyretics are employed.

Antiseptic Pastilles for Gargles.—FUERST (*Bull. Com.*, 1896, XXIII, p. 563)

For the antiseptic treatment of the pharynx and the nasal fossæ, the author recommends the use of pastilles composed as follows:

Boric Acid	150 gme.
Salicylic Acid	15 gme.
Sodium Chloride	30 gme.
Saccharin	3 gme.
Oil Peppermint	1 gme.
Oil Eucalyptus	1 drop

Make into 300 pastilles.

One pastille dissolved in a cupful of boiling water yields, when cold, an excellent gargle. After having used two-thirds of the solution for gargling, the cup should again be filled with water, and this diluted solution snuffed up the nose.

SURGERY

OPHTHALMOLOGY, OTOTOLOGY, RHINOLOGY
LARYNGOLOGY, DERMATOLOGY, ORTHO-
PEDIC AND GENITO-URINARY SURGERY

Department Editor

SAMUEL LLOYD, M.D.

GENERAL

In charge of B. FARQUHAR CURTIS, M.D., WILLIAM B. COLEY, M.D., E. M. FOOTE, M.D.

The Value of Gastro-enterostomy in the Treatment of Carcinoma of the Stomach.—A. ZELLER (*Centralbl. f. Chir.*, No. 46)

The author urgently advises the performance of gastro-enterostomy in pyloric cancers as soon as symptoms of stenosis appear. He reports a case in which the patient was able to perform his work for about one year and seven months, and lived over two years after the operation. This is a case where the diagnosis was anatomically certain, and which survived the gastro-enterostomy longer than any other.

Primary Acute Osteomyelitis of the Vertebrae.—HAHN (*Beiträge z. klin. Chir.*, XIV, 1895, No. 1)

Primary acute osteomyelitis of the vertebrae is rare. It presents the same clinical picture as acute osteomyelitis of hollow and flat bones. It is only complicated by the involvements of neighboring cavities and organs, especially the spinal cord.

If the body of the vertebrae or the base of the arch is the starting-point, the pus will take the same course as in tubercular spondylitis. In the other cases the pus travels backward. If the cervical region is involved, retro-pharyngeal and esophageal abscesses or posterior mediastinitis may develop. Empyema may be present, with involvement of the dorsal vertebrae; and if the lower dorsal and the lumbar vertebrae are the seat of the disease, psoas abscesses develop, which easily break into the peritoneum.

The most serious complication is rupture into the spinal canal. The prognosis depends on the complications. Early evacuation of the abscess is indicated.

Surgical Experience in Carcinoma of the Stomach.—Prof. KRÖNLEIN, of Zurich (*Beit. zur Clin. Chir.*, XV, No. 2, p. 311)

KRÖNLEIN's observations are based upon 67 cases, 40 men and 27 women. Five were under 30 years of age, the youngest being 27.

Of the 67 cases 26 were not operated upon; 22 were subjected to exploratory operation; 4 to gastro-enterostomy; 15 to pylorotomy.

It is interesting to note the duration of life in the cases not operated upon. Of the 7 cases that appeared operable, but which declined operation, one lived 652 days, another 215 days; one died in 27 days, and another in 87 days.

Of 19 cases that appeared inoperable, and hence were not subjected to operation, none lived more than nine months; only 5 more than five months. Six lived but one month.

Of the 22 cases in which exploratory laparotomy was performed, 2 lived upward of one year; 10 lived less than three months. The longest period was 398 days.

Of the 15 cases in which pylorotomy was per-

formed, 4 died and 11 recovered; a mortality of 26.6 per cent. This is a very low mortality compared with that of other surgeons: BILLROTH'S, up to 1890, was 55.1 per cent. in 29 cases; CZERNY'S, up to 1895, was 43.7 per cent. in 16 cases; MIKULICZ'S, up to 1895, was 27.7 per cent. in 18 cases.

The final results in KRÖNLEIN's cases were as follows: One case lived 794 days; a second, 488 days; a third, 509 days; a fourth, 596 days; a fifth, 128 days; a sixth, 14 days. The remaining five cases were still living at the time the report was published.

The final results furnish no less of a tribute to the judgment of the surgeon in the selection of his cases than does the low mortality to his skill as an operator.

Intestinal Anastomosis with Murphy's Button.—H. ODERFELD (*Centralbl. f. Chir.*, No. 46)

The author reports the case of a woman 60 years old with pyloric cancer. Gastro-enterostomy, according to Wölfler's method, with Murphy's button, was performed, and the serous membrane around the anastomosis was sutured with Lembert stitches. For six days everything was favorable; then perforative peritonitis developed, and the patient died.

On post-mortem an opening, large enough to admit the finger, was found on the right side of the anastomosis. The button and necrotic wall were lying free in the stomach, and total separation of the stomach from the jejunum would have occurred had it not been for the Lembert's sutures.

A Case of Mesenteric Cyst Cured by Laparotomy.—R. ULLMANN (*Centralbl. für Chir.*, No. 46)

The author reports the extirpation of a true mesenteric cyst; that is, a cyst situated and developed between the layers of the intestinal mesentery. The girl, 18 years old, noticed, three-quarters of a year ago, a swelling, which gradually increased to the size of a child's head. It was very freely movable, which is a very important sign in these cases. Periods of constipation were also characteristic. The patient was cured.

ORTHOPEDIC

In charge of T. HALSTED MYERS, M.D.

Acute Osteomyelitis of the Spine.—MÜLLER (*Deut. Zeitsch. f. Chir.*, XLI, No. 6, p. 445)

This affection is extremely rare in contrast with tubercular disease of the spine, and is relatively more fatal. The clinical history of osteomyelitis in other parts of the skeleton, except the skull, is well known, but the cases on record in which the vertebrae were affected are few, and show such variations anatomically and clinically that additional reports would be very valuable.

MÜLLER has succeeded in collecting seven cases of osteomyelitis. They are distributed as follows: One case involved the sacrum, two the lumbar vertebrae, three the dorsal region, and one the cervical. The body of the vertebrae was affected twice, body and transverse process once, arch once, arch and transverse process once, body and spinous process once, body and arch once.

The author reports the following case, which gives a good clinical picture of the disease: A girl 12 years old was struck on the spine with the hand in the summer of 1891. There was local pain often, but the child went to school, and had no alarming symptoms till December 10, 1891, when she had

chills, headache, severe pain in the back, and four days later the temperature was varying between 38° and 39° C. Three days later paresis of legs. January 14, 1892, retention of urine. In 12 hours motor and sensory paralysis became complete to nipple line, left side being a little higher than right. No diminution of knee-jerk; no clonus. No deformity of the spine, but slight edema of the upper dorsal and lower cervical regions. Lungs negative. Urine turbid, containing some albumin. A diagnosis of Landry's paralysis was made. Incontinence of urine and feces became complete. January 5, swelling increased; on left side of three upper dorsal spines there was an abscess as large as a goose-egg, with redness of the skin. January 6, evacuated brownish-gray pus containing many fat-globules, brownish lumps, and blood-clots. The deep spinal muscles were degenerated into punk-like masses. There was total necrosis of left half of arch of second dorsal, and the greater part of the spinous process; the inner surface of right half of arch and the left transverse process are also affected, and all these parts were removed. Pus of the same character escaped from the canal. The dura pulsated normally, but appeared thickened and covered with rough, brownish masses. No signs of external compression. No cheesy masses. Iodoform gauze tamponade. Immediately after the operation the pus was examined. There were no tubercle bacilli, but many colonies of cocci. Much fatty detritus. The granulations, fat tissue, and bone were also examined, and no tubercle bacilli were found.

After the operation the pains ceased, the temperature sank below 37° C., the appetite improved, and some decrease in the extent of the anesthesia was noted. In spite of irrigation a foul cystitis developed, with suppuration of the kidney. Bed-sores, edema of lungs followed, and patient died January 24, 1892. The wound was granulating well, and there was scarcely any suppuration. The dura was quite soft opposite second dorsal vertebræ, and the underlying cord of almost pulpy consistence. Again examinations of the various structures failed to show tubercle bacilli. Periosteal bone-growth had begun. MORIAN also, in his two cases, found brown pus, yielding cultures of staphylococci.

The rapid formation of a spinal deformity alone proves little as to the etiology, since tuberculous spondylitis has often an acute onset; fractures and osteomalacia must also be excluded. What part osteomyelitis plays in these cases, especially where they follow a slight traumatism or an infectious disease, is still a question. The reason for the relative immunity of the spine from osteomyelitis is also unknown. Even the ankle-joint is more frequently attacked than this great mass of bones. Whether the spinal focus is primary or secondary the infection takes place through the arteries, and the symptoms and treatment are the same in either case. These cases often, no doubt, escape notice on account of a simultaneous pulmonary disease or nervous affection. Much greater deformity would follow these attacks were it not for the early reparative process taking place from the periosteum. This fact can be used directly as a help in diagnosis from analogous tubercular infections. The formation of abscess seems to be the first positive indication of the nature of the disease. These usually require from eight to fourteen days to appear, but may burrow in unexpected directions, and remain undiscovered for some time. If spinal-cord symptoms are present, it seems to be proper to relieve the pressure from these abscesses early, as the tendency here is to advance rapidly, in contra-

distinction to the clinical history of tuberculous disease. The first symptoms of compression in acute osteitis are due to anemia, stasis, and inflammatory edema, while softening and myelitis follow as secondary processes. Whether these can be avoided by an earlier opening of the canal will be decided by future observations. In the cases reported by MÜLLER the abscesses were opened on the fourteenth, nineteenth, seventeenth, and twenty-seventh days. The first case recovered, the others died. The fatal character of this disease is shown by the fact that five out of the seven cases reported died.

Hallux Rigidus.—MAYO COLLIER (*Lancet*, No. 3747, p. 1582)

C. showed a youth aged 17 years on whom he had operated for hallux rigidus. Treatment by rest, tonics, and frictions was tried first without producing any effect, so the head of the metatarsal bone of the great toe was excised. The usual pressure-carries was present on the under surface between the sesamoid bones and the head of the metatarsal bone. Locomotion was now completely restored without any changes in the functions or appearance of the foot.—MR. BIDWELL considered that most of the cases of hallux rigidus could be relieved by forced extension under chloroform, after which the toe should be kept in a state of over-extension, by means of a plaster-of-paris splint, for 14 days.

Reunion of Flexor Tendons of Finger, Divided two months before operation.—MORTON (*Brit. Med. Jour.*, No. 1831, p. 270)

The author saw his case a year after he had operated, and the finger was then as useful for sewing or work of any kind as either of the others. She could flex it at all joints freely. The scar was not adherent to the tendons. MR. MORTON remarked that in these cases it may or may not be difficult to find the divided ends and bring them together, but it is always difficult to avoid adhesions afterward, and there is danger of rupturing the union by too early or forcible movements. He started to move the finger on the fifth day, but did not then put any strain on the point of union. No extension was made for six weeks, and flexion was securely maintained for three weeks. The after-treatment is most important and if we wait long enough the result, which at first seems bad, may in the end be quite satisfactory.

NOSE AND THROAT

In charge of JAMES E. NEWCOMB, M.D.

Studies upon the Nature of Rhinitis.—FERMI and BRETSCHNEIDER (*Arch. Ital. di Otol.*, IV, 1895, p. 23)

These authors have made careful clinical and bacteriological researches upon acute rhinitis. Their paper is probably the most elaborate yet written on the subject of the flora of the nasal region. They come to the following conclusions:

1. Simple coryza is not a germ disease.
2. Many coryzas are due to the direct irritant action upon the nasal mucosa of exciting agents, partly physical and mechanical, partly chemical, agents which attack the mucosa either from the external surface (trauma, polyps, chemical fumes, etc.) or from within the circulation (coryza, in consequence of the ingestion of the iodides, of the infectious diseases, etc.).
3. "Colds" are really due to a functional, trophic, vaso-motor disturbance of the mucosa of a nervous

kind. They are due, not to the action of mere cold as such, but to sudden and severe changes of temperature combined with a high hygrometric state during which slight variations of temperature are more keenly felt.

4. Hay-fever, so called, occurs in persons in whom the trophic innervation of the nasal mucosa is permanently altered in consequence of a persistent functional alteration of the nervous system, either congenital or acquired. This may arise, not merely from the ordinary physical factors (mechanical or chemical), but also in a reflex manner from excitants of general or special sensibility.

A Form of Pharyngitis Permitting the Recognition of Diabetes or Albuminuria.—GAREL (*Ann. d. Mal. de l'Oreille*, XXI, 1895, p. 121)

This article describes a peculiar variety of pharyngitis which, according to the author, frequently occurs in glycosuria and albuminuria before the amount of either of these products in the urine is sufficient to direct attention to the systemic or renal condition.

Patients thus affected begin to be troubled with an irritation in the throat at the level of the pharynx; a sort of tickling, a slight difficulty in swallowing saliva, a feeling of stickiness at the base of the tongue. Examination reveals a marked congestion of the pharyngeal mucosa, of the faucial pillars, and palatine vault. The thickening of the membrane is so great as to sometimes render difficult the introduction of the laryngeal mirror. All the throat reflexes are excessively exaggerated, the mucosa is exceedingly sensitive, and it is often covered with a diffuse layer of viscid secretion. The voice is a little muffled, as the vocal cords participate in the general hyperemia.

Out of 21 cases examined by GAREL, 10 had sugar in the urine and 11 had albumin. Of the entire number 3 had both. The sugar cases occurred in patients between 40 and 50 years old. The albumin cases were between the ages of 28 and 75. Most of the 21 came from the higher walks of life. A gouty tendency was frequently observed, as was also a tendency to chronic bronchitis. Most of the patients were distinctly obese. The amount of sugar found varied, while in all cases save one the amount of albumin was distinctly slight.

[We hardly think that the writer has proved his case. All the signs and symptoms he describes are common enough in many different conditions. It must not be forgotten that the well-balanced specialist tests the urine in every obstinate case of sickness just as often as does the general practitioner. Such an analysis should never be neglected in any obstinate case of pharyngeal hyperemia which remains unaffected by the usual topical treatment.—ED.]

Anesthesia with Gualacolized Oil.—LAURENS (*Ann. d. Mal. de l'Oreille*, XXII, 1896, p. 9)

LAURENS has found that a 5-per-cent. solution of gualacol in pure olive oil has decided anesthetic properties, and that it is applicable to many minor operative conditions in nose, throat, and ear practice. It is applied on a cotton-tipped probe and rubbed in briskly in nose and pharynx. Anesthesia is produced in from fifteen to twenty minutes, and then the minor cutting and cauterizing procedures can be undertaken without causing pain.

In the ear five or six drops of the preparation

(slightly warmed) are placed in the canal for 20 minutes and then withdrawn by means of hydrophile cotton. Paracentesis of the drum membrane can then be done without causing pain. Should this prove to be universally true, the remedy will be a valuable one indeed.

Mucous Glands in the Hyperplastic Epithelium of the Nasal Mucosa.—BOENNINGHAUS (*Arch. f. Laryngol.*, Vol. III, No. 3, p. 372)

B. concludes as follows:

1. In the hyperplastic epithelium of the respiratory region of the nasal mucosa, mucous glands sometimes occur.

2. They are formed out of distinctly ciliated cylindrical cells (such as occur in the normal mucosa), which group themselves about a tubular depression or involution of the hyperplastic cylindrical epithelia, and at the bottom are accustomed to secrete mucus.

3. The mucous cells cannot be distinguished from the goblet cells of the normal mucosa, and have, like the latter, a network protoplasmic structure.

4. In section, the most obliquely ascending excretory ducts are almost always separated from the bottom of the glands, and thus the latter appear as large bright buds in the midst of the epithelial layer.

Etiology of Nasal Polypl.—LUC (*Archiv. Int. de Laryngol.*, VIII, 1895, p. 252). Conclusions

1. The myxomatous degeneration of the nasal mucosa (which differs histologically but little from a simple edema of this membrane) presents itself under aspects which differ according to locality. The disposition for the affected tissue to become pedunculated is more marked in the vicinity of the middle meatus and middle turbinated, and this is doubtless due to the numerous folds and sinuosities in which this region abounds.

2. The coexistence of lesions of the subjacent bone with the myxomatous state of the mucosa is not constant. LUC's own experience leads him to regard it as exceptional.

3. Myxomatous transformation of the nasal mucosa is often completely independent of any neighboring lesion. It can occur as the result of prolonged or repeated catarrhs, although it is not always possible to assign, in any given case, the operation of this particular cause.

4. In other cases, the myxomatous transformation seems to result from adjacent edema, consecutive to various nasal lesions, the most frequent of which are nasal suppurations. In rare instances, the presence of malignant growths in the nose seems to act as a causative factor.

Bacteriological Findings in Ten Cases of Empyema of the Antrum.—HEAZFELD and HERRMANN (*Arch. f. Laryngol.*, II, No. 3, p. 143, 1895)

The writers give a brief clinical history of each of the cases examined, and describe in full the technique of their bacteriological work, which was confirmed by inoculation experiments.

Several bacteria were found which were non-pathogenic; that is, they did not cause the death of the inoculated animals or severe pathological changes in them. It is not claimed, however, that these germs may not have had some influence upon pus-formation in the antrum.

Of pathogenetic bacteria the staphylococcus pyogenes aureus was found five times, S. p. albus three times, streptococci eight times, and Friedlander's encapsulated bacillus once.

OBSTETRICS; GYNECOLOGY; PEDIATRICS

Department Editor

THOMAS S. SOUTHWORTH, M.D.

Collaborators

GEORGE G. WARD, Jr., M.D., GEORGE R. WHITE, M.D.,
EDWARD N. LIELL, M.D., WILLIAM B. NOYES, M.D.

Causes of Neurasthenia among the Women of To-day.—MARY A. SPINK (*Woman's Med. Jour.*, 1896, No. 2)

Three divisions of neurasthenia are referred to as entering into its etiology—the lithemic, simple, and reflex; the latter from non-nervous organs and vicious habits.

The lithemic, the more frequent, can be differentiated by a chemical and microscopical examination of the urine, and is characterized by a high specific gravity, color, and acidity, together with the presence of uric-acid crystals mainly. The term "simple neurasthenia" refers in a general way to the symptom group of a true neurasthenia, where the functions of the nervous system are below par. The neurasthenic woman has frequently an inherited tendency to nervous diseases, increased by untoward environment. In fact, the more common form, referring to the simple type, is caused mainly by the lack of a definite object in life.

Gonorrhea in Children.—FISCHER, of Altona (*Deut. med. Wochenschr.*, 1895, No. 5; Abstr. in *Centralbl. f. Gyn.*, 1896, No. 8, p. 231)

FISCHER reports 54 cases of vulvo-vaginitis in young girls, occurring in the Altona Hospital. In 4 of the cases there was simply a catarrhal inflammation characterized by a scanty, thin, milky secretion, composed of flat epithelium, bacteria, and a few pus-cells. The remaining 50 had true gonorrhea. Attempted coitus was the cause in but one case. The others had caught the disease from members of the family, servants, clothing, or linen. The disease has been endemic in the Altona Hospital for several years, but the exact mode of transmission has not been determined.

Children under 6 years are more liable to take the disease, but older ones are not spared. Scrofulous and syphilitic children were not more frequently affected than others.

The clinical picture in general was the same as for gonorrhea in adults. As a special characteristic of gonorrhea he mentions sticking together of the labia majora on their edges by reddish-yellow purulent crusts. In opposition to other writers he finds the Bartholin's glands frequently affected. The subjective symptoms are usually mild or wanting. The duration of the disease is several weeks or months.

Therapy consists in rest in bed during the early stages, warm sitz-baths and a vaginal douche three times a day with 1-2 per-cent. solution of zinc sulphate. The urethra requires no special treatment.

The Bacteria of the Female Genital Canal, and Their Relation to Endometritis.—SIGMOND GOTTSCHALK and ROBERT IMMERWATER, of Berlin (*Archiv. f. Gyn.*, 1896, L, No. 3, p. 406)

The unsatisfactory classification of the different varieties of endometritis has led DOLERIS, WINCKEL, and others to attempt a classification based on bac-

terial examination of the endometrium. In order to determine how far the above classification is practicable, the authors have made careful bacterial examinations in all cases of endometritis coming into their clinic during the past two years. In 60 cases secretion was obtained from the cavity of the uterus and examined microscopically and by cultures with the following results: In 21 of the patients, mostly cases of fungoid endometritis, no bacteria were found, and in most of the cases repeated examinations gave negative results. Seven of the 21 cases showed the presence of bacteria of some kind after frequent intra-uterine manipulation, probably due to inoculation by the instruments. The bacteria, however, were not pathogenic. These observations agree with those of DÖDERLEIN and BUMM, who assert that there are certain forms of chronic hyperplasia and chronic catarrhal endometritis corporis which are not of bacterial origin and exist without the presence of bacteria.

The 39 remaining cases in which bacteria were found may be divided into two groups—those in which staphylococci were found, and those in which non-pathogenic bacteria were present. Streptococci were absent in all cases examined.

The staphylococcus cases are subdivided into two groups—primary infection, and secondary infection.

The first subdivision includes seven cases. Two of these had a profuse, purulent, sometimes bloody, foul-smelling secretion from the uterus, which contained no gonococci and differed from gonorrhea of the uterus in that there was a foul odor, which is never present in that disease. These cases, together with three others not in this list, led the authors to believe that there is a certain form of purulent endometritis, caused by the staphylococcus pyogenes albus, which can be recognized clinically by the foul odor and occasional bloody color of the discharge.

Most of the cases in this group date their disease back to a labor or abortion in which they suffered from fever.

Secondary staphylococcus infection occurs after an acute gonorrheal endometritis. Four cases are recorded in which the gonococci disappeared after about six weeks and the uterus contained only staphylococci, or staphylococci and several other bacteria. These cases indicate that gonorrhea so diminishes the resistance of the endometrium against bacteria that staphylococci find a good nidus for growth, while under normal conditions they would be thrown off. The necessity of the utmost aseptic precaution in the treatment of gonorrhea is evident otherwise.

A secondary infection may cause a continuation of the inflammation after the gonorrhea proper has subsided.

Non-pathogenic organisms were found in the remaining 28 cases, usually several kinds in each case. Fifteen different species are described, including seven forms of diplococci, four bacilli, two sarcinæ, and two yeast fungi.

It is not definitely determined whether these so-called non-pathogenic organisms have any causal relation to the inflammation. Repeated inoculations proved them harmless when introduced into a healthy uterus or healthy urethra, but on an unhealthy mucous membrane it is not improbable that their mere presence may cause irritation enough to keep up an inflammatory process. Moreover, most of the organisms produce a chemico-toxic substance, which cause more or less irritation on an already diseased membrane. Many of these cases are cured by applications of iodine or some other antiseptic which gets rid of the germs.

SOCIETY MEETINGS

NEW YORK COUNTY MEDICAL ASSOCIATION

STATED MEETING

April 20, 1896

JOSEPH E. JANVRIN, M.D., President

Hypnotism as a Therapeutic Agent.—Dr. LOUIS LICHTENSTEIN said that according to the school of CHARCOT hypnotism is an artificial neurosis, and can be produced in hysterical persons only. LEOPOLD and BERNHEIM, on the other hand, claim that "suggestive therapeutics" is nothing more than persuasion. CHARCOT distinguishes three stages, viz.: (1) catalepsy; (2) lethargy; and (3) somnambulism; but outside of the school of the Salpêtrière these three stages had not been observed. The speaker said that in his opinion hypnotism was not a hysterical neurosis—indeed, some hysterical subjects could not be hypnotized. As a general rule, it might be said that the easier one could concentrate one's attention the more easily could one be hypnotized. The hypnotic sleep, being an exalted state of sensibility, prevents the cortex in its capacity of criterion from interfering with the suggestive activity of the lower nerve centers. This method of treatment should be placed on the same level with electro-therapeutics, hydro-therapeutics, and similar means. Functional neuroses of all kinds, the speaker said, were favorably influenced by suggestion; the nervous disorders of writers yield to it readily, but chorea is not benefited by it. It is generally considered that it is difficult to hypnotize neurasthenics, but if one can succeed, the results from this therapeutic method were usually exceedingly good. Alcoholism is favorably influenced by "suggestion." He had succeeded in curing several cases of morphinism by suggestion, although this condition was not as amenable to this treatment as alcoholism. The other drug habits—such as chloral habit—were readily treated in this manner. For the successful treatment of neuralgias, all observers agreed that a comparatively deep sleep was essential to success. Habitual headaches were often favorably influenced by hypnotism. Chronic constipation of many years' duration, if not dependent upon intestinal fermentation, could frequently be cured. By "suggestion" one could often accomplish wonders in influencing the menstrual function. In susceptible subjects, labor might be made almost, if not quite, painless by suggestive therapeutics. The practice of hypnotism for other than therapeutic purposes should be prohibited by law.

In conclusion, the speaker cited a variety of cases in which he had successfully employed hypnotism. Among these cases was one of severe uterine hemorrhage—so severe that he thought tampons, ice, and hot water would have been powerless, or so slow as to have been undesirable—in which the "suggestion" was given to the patient that the uterus would contract, and at once it did so, and the hemorrhage ceased.

The various stages or degrees of hypnotism were then demonstrated on a young man. As an example of the illusion of the senses that might be produced in a certain stage, the young man was given a lead pencil, which he was told was a cigarette. He proceeded to light and smoke it. Another illusion of sensation was demonstrated by holding a watch several yards from his ear, and by "sugges-

tion" making him hear it very distinctly, whereas when the watch was placed close to his ear he said that it was far away and he could no longer hear it tick. The most interesting effect on sight that Dr. LICHTENSTEIN said he had observed as a result of "suggestion" was then exhibited. At a great distance this subject was made to read unfamiliar printed matter while hypnotized, yet when he was awakened out of his hypnotic sleep his range of vision appeared much more limited. The speaker said he had found this difference in the range of vision to be as much as one and a half feet. When the young man came out of his sleep he stated most positively that he could not recall a single one of the many things that had been done to him during the time he was in that state.

The second subject hypnotized was a young girl who seemed even more susceptible to the hypnotic influence. She sat on the platform with both eyes open, and averred that she could not see anyone in the room except the one who had hypnotized her. Although spoken to by the President, she paid not the slightest attention, and when asked if she heard any voice, replied that she only heard Dr. LICHTENSTEIN'S voice. She also exhibited in a marked degree a complex post-hypnotic suggestion and hallucination. The last experiment, and one which was exhibited because of its interest from a medico-legal point of view, was the suggestion to her of an incident in the street in which a little boy had been unmercifully beaten by a man. On awakening, the girl identified the man, and said she was willing to take her oath that he was the guilty party, although the seriousness of the offense was first explained to her. This was intended to show that some individuals might be made to firmly believe by "suggestion" that a certain person was guilty of a certain offense, irrespective of the facts in the case, and that this might be so firmly impressed on the mind that the party so hypnotized would afterwards be willing to swear as to the correctness of this belief, and identify in court the person who had been "suggested" as the guilty party.

Dr. H. ERNST SCHMID, of Westchester County, said that since he had presented this subject of hypnotism to the association about five years ago he had given considerable attention to the psychic phenomena rather than to the therapeutic features of hypnotism. Personally he was entirely opposed to the views promulgated by CHARCOT, believing that "suggestion" was the great feature and not the hypnosis itself. In his opinion, no case of true epileptic fits had ever been cured by hypnotism; such reported cases had always proved to be examples of hysteria.

Dr. W. M. LESZYNSKY said that in the mind of many in the medical profession neurasthenia and hysteria, and other similar functional disturbances were closely allied to hypnotism. The useful sphere of hypnotism in neurology was a legitimate, but a very small, one. When used in the minor degrees it was deleterious in some patients, even when done by competent persons. He recalled a case within his own acquaintance of a young and typically hysterical girl, who had been made decidedly worse in his absence by several unsuccessful attempts at hypnotization. As to such treatment influencing facial paralysis accompanying hemiplegia, he would say that this was not a voluntary or an automatic condition, but one produced by an organic lesion, and he had yet to see such a form of facial paralysis influenced by hypnotism. He felt that nothing had been proved here scientifically to-night, and he made this statement without wishing

in any way to attack the veracity of the reader of the paper or the honesty of the subjects who had been hypnotized. Hypnotism was certainly a remedy which could be used properly in only a very few selected cases. Such experiments as telling a person that he could not move a hand or foot, he had carried out successfully in a hysterical woman without any previous hypnotization.

Dr. LICHTENSTEIN, in closing, said that he believed with Dr. SCHMID that true epilepsy could not be cured by hypnotism. Hypnotism, when not properly carried out, certainly was deleterious, and this was particularly the case if the "suggestion" were not removed afterward.

NEW YORK ACADEMY OF MEDICINE

GENERAL MEETING

March 19, 1896

DANIEL LEWIS, M.D., Vice-President, in the Chair

The Surgical Treatment of Hare-lip and Cleft-palate in Children.—Dr. D. H. GOODWILLIE read a paper on this subject. (See p. 583.)

Dr. ROBERT ABBE said that the subject of the paper had interested him for a long time, and he had also had many opportunities in hospital to do these various operations on infants. In his opinion, there was hardly any operation which so taxed the ingenuity and experience of the surgeon as these operations on the face and mouth of infants. He could see the value of some of the very many instruments exhibited this evening, but many of them seemed to be unnecessary. Dr. GOODWILLIE's plan of making a double hare-lip out of a single one by cutting some of the sound side away in order to bring the two lips more to a central scar did not seem to him at all necessary, although it was a procedure which had been advocated by some surgeons. He thought that the Hagedorn operation was capable of giving an almost perfect result. Regarding the fixation of the lip by from two to four pins, he said that it seemed to him that they would be apt to make a permanent scar after they had been in for twelve days. It had been his experience that pins or sutures cut through in a few days, unless the lip were confined by adhesive plaster or some similar method. After placing the sutures in the lips, it was wise to pass a deep double retention suture so as to obtain a broad muscular surface for two or three days. He did not dare to leave these sutures longer than that, for they made little scars after a few days. The modeling of the jaw seemed to him a matter of much importance. His own plan was to endeavor to press together the maxillæ. Sometimes the bony gap could be entirely filled in this way.

At one time he had been of the opinion that no cleft-palate should be operated upon, but that they should be relieved by the dental surgeon fitting in a plate. He had, however, come to look upon the operations for closing the cleft-palate as legitimate. The parts bleed previously, and, as these little ones do not bear hemorrhage well, great care must be taken to control this as far as possible. For cleft-palate he preferred the Langenbeck operation, making a wide incision from before backward alongside of the gum, and far out on the roof of the mouth. It was impossible to bring together the gaping wound unless attention were paid to cutting the mucous membrane of the soft, as it leaves the hard, palate. This gave a sort of curtain, which dropped down and filled in the gap. The incision should be made without regard to the palatine artery, as it was likely to be injured in any case. He was grad-

ually coming to believe that these operations should be done earlier—even when the child was only a few days old. During the first week of life, infants usually took very little nourishment, and hence this was an excellent time to operate. At this time also the lips were apparently not so vascular as they were subsequently. He had usually left the palate operations until the second or third year, but he felt that the earlier operation was desirable, for the modeling of the soft parts certainly determined to a greater or less degree the shape of the contiguous hard parts.

Dr. B. FARQUHAR CURTIS said that he too believed in operating upon these deformities of the lip as early as possible, for the closure of the lips seemed to prevent the spreading of the bones. Another reason was that after the closure of the lip the child would be able to suckle better, and hence could be better nourished. If the deformity were allowed to continue, there was a tendency for the parents to neglect the child, and there was also more danger of bronchitis when the deformity was left unrelieved. It was somewhat more difficult to operate upon these lips quite early, owing to the thinness and tension of the parts. He thought the palate operation also should be done much earlier than had been the rule hitherto. The great dangers of the palate operation were the loss of blood and the long duration of the operation. It had been suggested to make the incisions on each side without freshening the edges, then separate the muco-periosteum from the bone, and lift up the flaps. A little gauze was then to be packed in, and nothing further done for from five to seven days. At the end of this time the operation was to be completed. The advantages were that at the first operation there was nothing to affect the child but a slight loss of blood, and the little one came to the second operation in excellent condition, and hence better prepared to stand the shock of the longer operation. The plan suggested by the reader of the paper, of making almost all these simple hare-lips double, seemed to him unnecessarily radical, and he could not quite understand the anatomical reasons upon which it was based. In some cases he had tried Dr. WYETH's plan of dividing the anterior part of the depressed maxilla from the posterior part, and prying this forward to the middle line in order to overcome the depression of the nostril. He had found, however, that there was considerable danger of sloughing of the piece of bone that had been so broken off. The use of the plate for the lip would be very convenient theoretically, but in practice it seemed to him that the difficulty would be to feed the child and at the same time prevent the discharges and milk from collecting between the different folds of the plate. Formerly hare-lip pins were considered absolutely necessary, but now they were not used, silkworm-gut having proved a very satisfactory substitute.

He had been particularly interested in Dr. GOODWILLIE's anesthetizing tongue depressor.

Dr. A. E. GALLANT said that he had observed that collodion dressings for the lips nearly always caused sloughing, and that of the various dressings ordinarily employed in lip operations the best was the insertion of deep silkworm-gut sutures.

Dr. GOODWILLIE, in closing the discussion, said that hare-lip pins, as usually applied, were bound to leave a scar if they were left in for some time; but where the pins were passed straight backward into the bone, the parts were immobilized, and there was rarely any appreciable scar. The object of this mode of introducing the pins was to immobilize the antagonizing muscles, and, by thus preventing motion

of the parts, to avoid scarring. He thought that all were pretty well agreed now as to the advisability of early operations; the earliest hare-lip operation he had ever done had been twelve hours after the birth of the child. In the cases in which the lips were quite thin, it would be necessary to abstain from operating for some time. There was no difficulty in practice in using the lip-plate.

SECTION ON SURGERY

Stated Meeting, April 13, 1896

B. FARQUHAR CURTIS, M.D., Chairman

Rupture of the Quadriceps Tendon; Suture; Recovery.—Dr. ARTHUR L. FISK presented a man, 64 years of age, on whom he had operated for ruptured quadriceps tendon in January, 1895. The man had slipped while unloading a heavy block of marble from a wagon, and had ruptured the tendon. He would not consent at first to an operation, so about a week elapsed before the widely gaping parts could be brought together by suture. The man then objected to general anesthesia, so the operation was done under cocaine. A gap as large as the fist was found above the patella, and this was filled with coagulated blood. The clots were removed and the ruptured tendon sutured with kangaroo tendon, six stitches being used. The superficial fascia and integument were united by catgut sutures, and the limb put up in a plaster-of-paris dressing. The speaker said that although the solution of cocaine had been freely used, it had been found that it did not seem capable of entirely obliterating sensation in the muscles, and hence he would not recommend doing this operation under local anesthesia. The man had now perfect use of the limb.

Cases of Floating Cartilage of the Knee Treated by Operation between 1885 and 1895.—Dr. PERCY R. BOLTON, in presenting a paper with this title, said that this particular period had been selected largely because the operations done at this time were performed under a much better surgical technique than previous operations. His paper was based upon 72 cases, which had been reported with sufficient detail to admit of their being carefully analyzed. Of this number, 23 were pedunculated and 49 non-pedunculated. One very interesting case in the series was a sarcoma, reported by Dr. WEIR, which had been found attached by a slender pedicle to the synovial membrane. The pedicle was tied off, and the patient made a good recovery. While the majority of cases of floating bodies in the knee-joint appeared to result from some slight traumatism, there were cases on record in which severe traumatism had caused a chipping-off from the ends of the bones. In a series of 135 cases of operation collected in 1860, 74.8 per cent. were successful, 3.8 per cent. were failures, and there was a fatal termination in 21.4 per cent. In the period from 1885 to 1895 no fatal cases were found recorded. In 62 out of the 72 cases considered in the paper, the recovery was complete; in 16 per cent., more or less disability was acknowledged. Six of the 10 unfavorable cases were examples of the removal of pedunculated bodies, and 4 for non-pedunculated bodies. Three of the unfavorable results were unavoidable, owing to the operative procedures required, and three were due to pre-existing disease, which persisted after operation. In most of the cases considered, the incision was made on the inner side of the patella. Where the pedicles were small but vascular, they were tied off; the larger pedicles were tied in two portions, the bleed-

ing stump cauterized, and the synovial membrane stitched over the stump. Irrigation and drainage appeared to be required only in those cases in which there was a chronic synovitis, or where there had been much manipulation or free hemorrhage as a result of the dissection.

Dr. FISK said that in a case of injury to the knee-joint by a machinery accident he had irrigated and drained the joint for three or four days, and the boy had recovered with an excellent knee. In another case, one of gunshot wound of the knee, he had seen Dr. ROGER, of Denver, adopt a rather novel procedure, viz., making a transverse incision across the joint, and exposing the joint by sawing through the patella. The bullet had become imbedded in the condyles. The ball was removed and the joint irrigated, but the patella was not sutured. He had not been able to ascertain the final outcome of this case. ALLINGHAM had reported a number of cases of "football knee," in which the semilunar cartilages had been torn off. He had removed the loose portions of cartilage and had been careful, in closing the joint, to suture the synovial membrane, and the muscular and skin layers, separately. This surgeon claimed that one should be just as careful about closing the joint as in closing the wound after an abdominal section.

Dr. ACHILLES ROSE said that Dr. SCHILLER had published in a German journal 143 cases, all that he could find recorded as having occurred during the period from 1883 to 1893. Of these, 39 were of pathological origin, 85 were traumatic, and in 19 the origin could not be determined.

Dr. JAMES P. TUTTLE said that his experience had not corresponded with the opinion so commonly expressed by writers on this subject—i.e., that the condition was commonly due to the gouty or rheumatic diathesis. He had found in his cases a history of a more or less severe traumatism about two years previous to the time the foreign body was first noticed in the joint. Statistics seemed to show that operation on cases of multiple foreign body were usually followed by more or less limitation of motion, but that where there was only one body the result was almost invariably excellent.

The Chairman, Dr. CURTIS, said that in two cases in which he had operated, two pedunculated bodies in the upper sac had been removed; the result had been very good. He would emphasize the importance of carefully suturing the different layers separately.

The Treatment of Sero-cystic Formations along the Funo-Testicular Tract.—Dr. THOMAS H. MANLEY read a paper with this title. He said that fully one-third of the cases of hydrocele that he had treated by simple tapping had relapsed. Although some surgeons still persisted in using the trocar, it was a slovenly and dangerous method. In his opinion, the artificial production of acute adhesive inflammation by the introduction of chemicals was unsurgical and not entirely devoid of risk. Volkmann's method had the advantage of giving the surgeon an opportunity of ascertaining the exact condition present. Personally he favored the method of resecting the entire tunica vaginalis except the basic attachment of the testis. The chief dangers of this operation were hemorrhage and infection. He used catgut for drainage, and applied a light dressing. Out of 31 cases so treated in the past few years, not one had proved unsuccessful.

Dr. TUTTLE said that it should be remembered that some patients would submit to the injection method, but would not agree to the open operation or to remain in bed for two weeks; moreover, he

felt that failures with the injections were to be attributed to the operator. It was a common mistake to neglect to secure proper asepsis and to thoroughly evacuate the sac. It was also important that *pure* carbolic acid should be used, and that the quantity should bear a certain proportion to the size of the hydrocele. It was best to empty the hydrocele by the use of an aspirator, and to aspirate again on the second or third day after the injection in order to remove the inflammatory effusion. By this method a cure was almost certain with little or no pain.

The Chairman said that he could also heartily endorse the injection method. Failures with this method occurred chiefly in cases in which there was more than one cavity. This condition should be diagnosed at the time of making the injection, and each cavity should be separately injected. Relapses sometimes occurred even after Volkmann's or von Bergmann's operations.

CORRESPONDENCE

(From the BULLETIN's Special Correspondents)

PHILADELPHIA LETTER

A stated meeting of the County Medical Society was held April 22, Dr. J. C. WILSON in the chair.

Dr. H. A. HARE presented a "Report of Some Cases: Toxemic Epilepsy; Hysterical Spasm; Intestinal Obstruction, with Appendicitis." The case of toxemic epilepsy occurred in a clergyman who had resided in Texas, and had had an attack of yellow fever from which he did not thoroughly recover. He had suffered from constipation, and to overcome this took considerable exercise. His symptoms lately had been mental stupor, malaise, some delirium and epileptiform attacks, followed by coma. There was no history of syphilis, sunstroke, or any injury. Three unsuccessful attempts were made to have the urine examined, but the bottle was either broken or decomposition had set in before it was received. For constipation he had on several occasions taken calomel and felt better after each administration, so this was used with good results.

The case of hysterical spasm occurred in a young man. He suffered pain on right side of abdomen, and under palpation the recti muscle would contract, the right especially, to the extent of 60 contractions to the minute. All symptoms disappeared under ether. He was found to have gastritis by lavage, and when this was cured the spasm did not occur.

The case of appendicitis and intestinal obstruction occurred in a young man. He was taken suddenly with great pain near the insertion of the diaphragm, with no tenderness in right iliac fossa. It was apparent that if there was not surgical interference very soon he would die, so he was removed to the hospital at midnight and Dr. J. CHALMER DA COSTA opened the abdomen in the median line and found an adhesion band over the cecum completely obstructing it, and on examining the appendix found adhesions, thickening, and inflammatory lymph. The appendix was removed, and, as there was beginning peritonitis, a drainage-tube was inserted. This was removed in 24 hours, and he again began to vomit matter of a green, watery character; the wound was opened, and the drainage-tube was replaced. He then went on to a slow and tedious recovery, without any untoward symptoms, except a slight hemorrhage from protruding knuckle of gut. The wound was brought together by adhesive strips, and there was no further trouble. He had suffered with a similar

attack six months before with pain in the right side. He was in the hospital 10 weeks after the operation. He has had another attack of vomiting and other symptoms of obstruction since he left the hospital, but these soon passed off.

Dr. HARE also spoke of a case of typhoid fever, where he had given broth and rice after the temperature had been normal for three days, with a complete relapse lasting three weeks.

Dr. J. PRICE thought that the case of appendicitis and obstruction, with evidences of peritonitis, illustrated well the advisability of the median incision, for if the incision had been made over the appendix the obstruction would not have been found. He also thought prolonged drainage was necessary; he used two or three large rolls of gauze, passing them above and below.

Dr. S. SOLIS-COHEN asked if the relapse in the typhoid-fever case was thought to be due to the feeding.

Dr. HARE said it was impossible to say definitely, but thought it was, as food given too early would cause relapses. He thought milk was the best food, as it inhibits the growth of the typhoid bacilli, and broths and starches gave a good medium for their growth.

By invitation of the directors, Dr. H. G. McCORMICK, of Williamsport, read a paper on "Some of the Therapeutic Uses of Guaiacol." He had used guaiacol extensively in typhoid fever after first seeing it used by Dr. S. SOLIS-COHEN to reduce fever in a patient with phthisis. He had treated 86 cases, making 864 applications. In one case he applied it 78 times, first using cold-water sponging with unsatisfactory results. When he made the first application the temperature was 107°, pulse 150, and in 30 minutes the temperature was 101° and pulse 110. He had noticed in all of the cases that there was a corresponding fall in the pulse, and that a weak pulse was not a contra-indication, as in some of the cases where the pulse could be scarcely counted, it was afterward found slower and much stronger. The dose used was from 2 to 25 drops, rubbing it in the right iliac region after washing and thoroughly drying the skin and then placing over it either wax paper or oiled silk. In one case only was there any irritation, and then very slight, and none of the patients objected to its use, as was the case with the cold baths. He had had chills occur after the first application when it was too large, but not after, when he then knew the susceptibility of the case. The effect of one application usually lasted from three to four hours, but in one case of pyemia he had applied 100 drops in three hours with very little improvement. He had used guaiacol as an intestinal antiseptic in typhoid fever in 56 cases, with one death from intestinal hemorrhage, which he first saw on the 15th day, death occurring on the 18th day. He first used 10 drops of guaiacol, but later had used 2½ grn. of the carbonate of guaiacol. The internal use did not have any effect on the temperature, but would remove the foul odor of the stools. He passed around clinical-temperature charts showing the range of temperature after each application.

Dr. J. V. SHOEMAKER said he was much interested to hear Dr. McCORMICK's experience as shown by the charts and cases. He had used guaiacol locally in superficial epithelioma, lupus, lupus vulgaris, and superficial ulcers, and he had noticed the same effects as given by Dr. McCORMICK.

Dr. HARE said he had been watching the work done by Dr. McCORMICK with great interest. He thought guaiacol a powerful antipyretic, stronger than any of the others, but not as good as cold baths

for the treatment of typhoid fever, as he thought the cold baths had other therapeutic action besides the reduction of fever. He thought that the cold packs were improperly applied in Dr. McCORMICK's case when they had failed to reduce the fever. He intended using guaiacol where the cold baths could not be used or where there was objection to them.

Dr. ANDERS said he had used it, but had had rigor in some cases and a rise of temperature above the original point in another. Dr. THAYER, of Johns Hopkins, had reported a case where the rise above the original temperature occurred soon after its application.

Dr. ANDERS had used guaiacol and glycerin locally for neuralgia and myalgia, and guaiacol 2 min. and chloroform 10 min. hypodermatically with good results.

Dr. WOODBURY said that guaiacol probably acted by the vapor entering the blood and being carried by the red corpuscles. It was readily vaporized. He had seen Dr. DA COSTA use it at the Pennsylvania Hospital. He had used it with good results in phthisis—6 to 12 grn. of the carbonate a day.

Dr. S. SOLIS COHEN said he had seen Dr. McCORMICK's cases in the Williamsport Hospital and they did well under his treatment, but he still thought the cold baths best for certain cases. He had used it as an intestinal antiseptic and thought it and salol were the best intestinal antiseptics.

Dr. ROSENTHAL asked for the results that had been obtained in a home with from 300 to 400 children where there were two epidemics of diphtheria. In each instance the epidemics were stopped by daily application of guaiacol with olive oil 50 per cent. and menthol 10 per cent. to the throats of the healthy children. He had used the carbonate and salicylate in tuberculosis.

Dr. McCORMICK said he had not seen the reduction of temperature suddenly followed by an elevation higher than the original, as reported by Dr. ANDERS. He had seen rigor and chills follow the first application, but not afterward, as he then knew the amount to give.

Dr. JOSEPH PRICE read a paper on "Report of Cases and Operative Procedures." He reported three cases with cancer of uterus and rectum; he opened the anterior vaginal wall and removed uterus through this opening and connected the bowels with Murphy's button to the vagina. One case died on the 7th day, and in the other two there was no odor of feces, the bowels being opened naturally once a day. He next reported cases where the appendix was extirpated and wound in head of colon was closed with suture, with good results. This he said was much better than leaving the stump, which would be liable to infect the abdominal cavity.

Dr. H. SHOEMAKER said he did not think the stump of the appendix ever caused any trouble, as it was usually healthy. The removal of the uterus through the anterior vaginal wall was not a new procedure.

Dr. M. PRICE said he had extirpated the appendix in one case, followed by recovery. He spoke of the absence of fever in cases with appendicitis, and said in 51 cases which he saw there was elevation of temperature in only one case.

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Dr. ERNEST B. SANGREE has been elected Professor of Pathology and Bacteriology in Vanderbilt University, Tennessee. He is a graduate of the Medico-Chirurgical College, where he has acted as assistant professor in pathology, also adjunct professor at the Polyclinic and pathologist to the Philadelphia Hospital.

CANADA LETTER

LONDON, April 20, 1896.

At the meeting of the London Medical Association on the 13th inst. Dr. J. B. CAMPBELL read a paper on "Angina Pectoris." Referring to predisposing causes, he said that susceptibility to impressions seems to be hereditary in temperaments where the nervous element predominates. Among the victims of angina pectoris he instanced several distinguished men of that temperament. Lord CLARENDON, JOHN HUNTER, and Dr. ARNOLD died of this disease. He claimed that true angina pectoris is rare among women. The most frequent cause of the disease is organic affections of the heart or vessels, especially valvular disease, fatty degeneration, and atheromatous condition of the vessels. Under symptoms, he referred to the shallow breathing as due to the fear of aggravating the pain by a deep breath. Numbness and tingling remain in the nerves of the left side for some time after the attack has passed off. The diagnosis of typical cases is easy, the conditions with which it may be confounded being pleurodynia, flatulence, pleurisy, and sensory disturbances due to aneurism or tumors. As clinical types he reported four cases from his own practice. The first, a *neurotic* case, a male patient, aged about 65 years. His neuroses induced dyspepsia, irritability, and excitability of temper often culminating in an attack of angina pectoris. The second, a case in which a violent attack, the only one experienced by this patient, was induced in a politician in the course of an angry discussion with an opponent; this case he designated as *emotional*. The third example was classed *hysterical*, a woman in whom the hysterical seizures at times took on the form of an acute angina. The fourth was an *organic* case, an accountant aged about 60 years, with valvular disease of the heart (mitral regurgitation)—the only one of the four in whom the disease, as yet, has proved fatal.

The treatment must be directed to the cause. The best of all agents for relief of an attack from any cause is amyl nitrite; nitroglycerine he found the most generally helpful drug for continuous treatment, especially in cases due to structural diseases of the heart or vessels. In atheromatous degeneration of the coronary arteries iodide of potassium is the most helpful remedy.

In the discussion which followed, Dr. GRAHAM said that in a country practice extending over a great many years he had met with this disease very frequently among the aged, broken down with the work and hardships incidental to life in a new country. Dr. ECCLES had a patient subject to attacks of angina pectoris under his charge now to whom he had administered nitroglycerine in $\frac{1}{100}$ -gr. tablets, three times a day, for the past nine months. He became tolerant of the drug, free from the frontal headache which it first produced, and had gained flesh under its use, with a corresponding freedom from the former severity and frequency of the attacks.

Dr. JENTO recalled a case that had resisted all treatment until the patient, who had suffered much from dysmenorrhea, incidentally expelled a membranous uterine cast (membranous dysmenorrhea), and was thereafter entirely free from all attacks of angina pectoris.

Dr. GARDINER's experience was that dilatation of the heart was the most frequent cause of this ailment, and he found that the old-fashioned mustard plaster applied over the precordia afforded as satis-

factory relief as any of the more modern remedies.

Dr. FERGUSON was now treating a case of angina pectoris due, he thought, to dilatation of the stomach, flatulent distention of that organ causing pressure upon the heart, and possibly also upon the distribution of the phrenic nerve in the diaphragm. He was treating by lavage of the stomach and restricted and regulated diet. The testimony of the patient as to the effect of amyl nitrite for the relief of attacks was that the half-ounce vial given him by the doctor was worth more to him than its weight in gold.

Dr. JENTO reported a case of "dislocation of the femur on the dorsum ilii." The patient, aged 34 years, male, consulted the Doctor in November, 1893, stating that he had hurt his leg in a logging-camp on September 1, by a falling tree. He was treated two months for a fractured thigh, and was walking with the help of crutches when he came to see Dr. JENTO. The thigh of the injured (right) side was slightly flexed, and the foot *everted* and abducted. Manipulation was painful and motion limited. The right buttock was enlarged and the head of the femur could be made out in its new position. On November 27, 12½ weeks after the accident, the patient was chloroformed and reduction attempted by manipulation, but without success. The Doctor then attached a pulley above the knee, and, after a few attempts, made reduction by traction, with the limb in the extended position. Hamilton's long splint was applied and worn for two weeks, and then replaced by a molded pasteboard splint, held in position by a thigh-and-spica bandage. This was removed in two weeks, and a heavy canvas splint fitted to pelvis and thigh, and the patient allowed to go around on crutches. In two months he could walk a long distance without a cane. In June, 1894, seven months after the reduction, he resumed his work. The doctor heard from him 11 months later, and he was still working and enjoying good use of his right leg.

In discussion, Dr. CAMPBELL said that he had very rarely found manipulation effective in reducing dislocations. He almost invariably relied on traction.

Dr. WISHART held that Dr. CAMPBELL's contention was true of dislocations of the shoulder, in which manipulation was ineffectual because the scapula was too movable to afford leverage for reduction by manipulation. *Regular* dislocations of the femur, however, were all most scientifically and easily reduced by the proper manipulations. This method was not suitable in Dr. JENTO's case, not only because the dislocation had been so long unreduced, but also because the V-ligament was ruptured, as evidenced by the *eversion* of the foot, and consequently this ligament did not furnish the usual leverage by which the regular dislocations of the hip are effected by manipulation. Reduction in this case, after a lapse of 12½ weeks, rendered the case remarkable. He had himself reduced a dislocation by pulley traction 5 weeks after the accident, and he had seen traction equivalent to the strength of 16 men, applied to a dislocation of the shoulder, which had been unreduced in 5 months, with the result that the arm was torn from the shoulder—a possibility which should not be lost sight of in applying forcible traction.

In replying Dr. JENTO took issue with the remarks of one speaker, who said that in recent dislocations the amount of resistance due to muscular contraction would be reduced if some time were allowed to elapse before attempting reduction, in order to weary the muscles, and permit of their relaxation. He held that it was acknowledged by all surgical authorities that the longer a dislocation is left un-

reduced, the more powerful does the muscular tension become.

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REGISTRATION OF BRITISH LICENTIATES.—The bill before the recent session of the Ontario legislature, proposing to admit British licentiates to registration on passing the final examination of the Ontario Medical Council, was withdrawn after being discussed by a special committee of the House and the Executive Committee of the council, the reason for withdrawal being that it did not cover a regulation of the Medical Council requiring applicants for registration to be domiciled in Great Britain for five years prior to the date of application.

MATRICULATION BILL.—Mr. Ross's bill, over-riding the council's regulation raising the standard of matriculation in medicine, was also withdrawn, on the understanding that at the next June meeting the council would practically adopt the proposition of the bill by admitting to registration as students in medicine any person who has passed the matriculation examination in arts prescribed by the Education Department.

CONVICTED OF QUACKERY.—"Doctor" DAVID MCCARTHY was fined \$100 at Paris, Ont., on April 1, for practicing medicine without a license, in violation of the Medical Act. He gave notice of appeal at the June Sessions in Brantford. Bail was accepted in \$600. This is the fourth conviction for a similar offense since August, 1894.

KENNETH L. REID, son of Dr. L. H. REID, of Bowmanville, Ont., has been awarded the gold medal at the Atlanta (Ga.) Medical College for the highest stand in general proficiency in the graduation class, and at a subsequent competitive examination he won the appointment (for two years) of house physician to the Grady Hospital, also situated at Atlanta, Ga.

Dr. G. S. RYERSON, M.P.P., of Toronto, left for England on Wednesday, to find rest and health after an attack of la grippe. He will revisit the hospitals while there and return some time in June.

Hon. Dr. MONTAGUE, Minister of Agriculture in the Dominion Government, has been recruiting in England for some weeks, accompanied by Mrs. MONTAGUE. While on the homeward voyage, their little son, a bright lad of nine years of age, took ill at his home at Ottawa and died. The first intimation the parents had of their bereavement was on their arrival at Halifax, where they were met by Drs. ROOME and MCKAY, who broke to them the sad intelligence. The doctor, who is a whole-souled, genial character, was prostrated by the news. Later the body was removed to Dunville, Ont., the former home of the family, for interment. Among those who came to extend their sympathy to the bereaved parents were several Cabinet ministers and many members of Parliament.

A Bacteriological Bureau is to be established in Allegheny, Pa. The building has been leased, and the director of the Public Safety Department has just made a visit to Buffalo to examine the laboratory in that city, which is said to be one of the best equipped in the United States. It is proposed to equip the Allegheny laboratory after the fashion of the one in Buffalo. The physicians of Allegheny are very much interested in the appointment of the State bacteriologist. A salary of \$1500 goes with the appointment. The most conspicuous physicians now in the field are Drs. ROBERT G. BURNS, JACOB WOLF, and C. B. CROMBIE.

BOOK REVIEWS

Practical Urinalysis and Urinary Diagnosis.—

CHAS. W. PURDY, M.D., Prof. of Urology and Urinary Diagnosis at the Chicago Post-graduate Medical School, etc. Second edition. With numerous illustrations, including photo-engravings and colored plates. Pp. 357. Philadelphia: The F. A. Davis Co.; 1895.

As the above title indicates, two distinct but related branches are considered in this excellent volume. The first part treats of the analysis of urine, and the second of the diagnoses that can be arrived at therefrom. Each constituent of normal urine is discussed in a methodical way: its nature and composition; its source or seat of manufacture in the economy; the significance of its increase or decrease, and the relations that these fluctuations bear to the metabolic processes, food supply, physical environment, and tendency to disease; then follow the methods for detection and determination of urinary constituents. Abnormal constituents are considered in about the same way: their nature, source, clinical significance, and detection. Although, of course, the reader of a book such as the one now before us ought to be acquainted with the minute anatomy of the kidney, still we think an illustration or two, with a concise description, of the renal histology, would have added to the effectiveness of the volume. There might have been added, too, an enumeration of the drugs that affect the color of the urine; a few are mentioned, but the list could have been lengthened—methylene-blue, for instance, which is not mentioned, colors the urine decidedly.

We had expected to find an elaborate discussion concerning the formation of uric acid; a little more than a page only is, however, devoted to it. What has been said about it is not new. Two views are given, one that uric acid is formed in the tissues, notably the spleen and liver, and is excreted by the kidneys; the other is that the kidneys not only excrete, but also form, the acid. The question is one of considerable clinical import. The view that is now again being prominently brought before the profession, namely, that increase in uric acid above the normal quantity is the result of a condition of suboxidation, is not mentioned by the author.

The causes of hematuria might have been given more completely in the portion of the book devoted to analysis of urine. Malaria and scurvy are not mentioned here, unless perhaps the former is included in "acute febrile processes," and the latter in "purpura hemorrhagica." Under urinary diagnosis, however, malaria is credited with being the "most prominent historical feature" when hematuria "occurs as an idiopathic disease of intermittent character." What is said about albuminuria every clinician should bear in mind: "Albuminuria is a symptom of the most variable significance, and therefore, in itself, should never be accepted as proof of the presence of renal disease. . . . It will be safer to accept albuminuria as an evidence of an existing abnormal state, the gravity of which must be determined by its accompanying symptoms."

The second part of the book, devoted to urinary diagnosis, and the appendix on examinations of urine for life insurance, are useful and practical additions. It is not sufficient to merely know that one or more urinary ingredients are present—one must be able to reason from them back to the lesion causing their presence. This is just what these chapters on

urinary diagnosis do. A careful perusal of this part of the work will amply repay the time devoted thereto.

The volume is written in an easily readable style and typographically is excellent. The cuts and colored plates illustrating the crystalline and amorphous urinary salts, casts, etc., are unusually well executed. The work as a whole is of an excellent type and deserves to be ranked among standard textbooks.

Therapeutics of Infancy and Childhood.—By A.

JACOBI, M.D., Clinical Professor of the Diseases of Children in the College of Physicians and Surgeons (Columbia University), New York, etc. Philadelphia: J. B. Lippincott Company, 1896.

This work, embodying as it does the results of the mature experience of one who for a period of 36 years has devoted himself very largely to the subject of pediatrics, will be received on every side with the greatest interest. In this age of pessimism with regard to the efficacy of drugs, it is refreshing to find one, with the vast clinical experience of the author, declaring himself unreservedly as an optimist in therapeutics, but we may well heed the warning which he utters that there is no rational therapy which is not based upon a careful examination and differential diagnosis, with a clear understanding of the physiological action of the drug to be used, and the morbid influence of the disease upon the patient who is to receive it. It is impracticable for us to go into minute comment upon the concise and pregnant paragraphs of the book.

The five opening chapters treat of the "Feeding of Sick Children, Treatment of the Newly Born, General Therapeutics, Constitutional Disorders and Infectious Diseases." These were published as essays some years ago in the Archives of Pediatrics. Next are separate chapters upon the diseases of the digestive, genito-urinary, respiratory, and circulatory organs, followed by the diseases of the nervous system, skin, ear, eye, muscles, bones, and joints. Under addenda are found comments upon the important therapeutic measures of recent appearance. These include Laborde's method of treating asphyxia of the newly-born, the use of bone-marrow in the treatment of pernicious anemia, the recognition and treatment of scurvy in infants, the use of thyroid extract, antitoxin in diphtheria, and finally a longer and somewhat polemical discussion of the preparation and sterilization of milk for infant-feeding.

The directions throughout the volumes for the giving of medicines are usually clear, although at times rather more explicit statements concerning the doses for infancy and childhood would be welcome. It is in the discussion of the indications for medication that the author is especially strong; for the determination of when and how and under what circumstances to administer a drug or to increase or diminish a dose is perhaps even harder than the making of the differential diagnosis, for only long personal experience or the familiarity with the mature deductions of others can teach us these things, and it is just in such teachings that this volume abounds.

The work is not a textbook for students. It is rather adapted to the use of the thoughtful scientific practitioner who, already familiar with disease, seeks for a scholarly differential discussion of the subject with its applied therapeutics. He who practices solely with ready-made prescriptions will find few if any such upon the pages, but better than this he should find much that will stimulate him to individual and discriminating effort.

EDITOR'S NOTES

The Richmond County (N.Y.) Medical Society is endeavoring to raise a fund sufficient to erect a contagion hospital on the Smith Infirmary grounds, on Staten Island.

Cuyahoga Medical Society.—The medico-legal section of the Cuyahoga Medical Society held its last meeting at Cleveland, O., and elected its officers for the ensuing year.

The British Association.—The sixty-sixth annual meeting of the British Association will be held in Liverpool September 16, 1896, under the presidency of Sir JOSEPH LISTER, M.B., F.R.C.S., president of the Royal Society.

The Passaic County (N. J.) Medical Society has elected the following officers for the ensuing year: President, Dr. JOHN BAULA; vice-president, Dr. PHILANDER A. HARRIS; secretary, Dr. CHAS. H. SCRIBNER; treasurer, Dr. JOHN T. GILLSON; delegates to the national convention at Atlanta, Drs. GEORGE H. BALLERAY, WALTER B. JOHNSON, and JOHN L. TEAL.

Medical Association of Alabama.—The annual session of the association took place in Montgomery, that State, on April 22. The address of welcome on behalf of the Medical and Surgical Society of Montgomery County was delivered by Dr. R. S. HILL, who took the place of Dr. W. C. THORINGTON, who was unavoidably absent. Among the papers read were the following: "The Recent Progress in Hygiene," JEROME COCHRAN, M.D., Mobile; "The Recent Progress in Therapeutics," GEORGE FLEMING BROWN, M.D., Birmingham; "The Recent Progress in the Prevention and Treatment of Tuberculosis," ROBERT HUGHES HAYES, M.D., Union Springs; "The Recent Progress in Prevention and Treatment of Sepsis," THOMAS DUKE PARKE, M.D., Birmingham.

Albany Medical College.—At the graduation exercises of the Albany Medical College, five of the graduates received hospital appointments in that city: FRED. T. CLARK, J. M. W. SCOTT, S. SHAW to the City Hospital, and L. L. FILLMORE, W. A. SANFORD to St. Peter's. Prizes were awarded as follows: Vanderpoel Prize, a clinical telescope-microscope, for the best bedside examination in general practice, to F. T. CLARK; the Vander Veer Prize, \$50, for the best report of a surgical clinic during the year, to JOHN P. VEDDER; the Merrill Prize, for the best report of the eye and ear clinics, to A. P. MUIR; the Townsend Prize, Freshman Class, for the best examination on physiology, to A. H. TRAVERS; the Boyd Prize, a fine case of instruments, for the best final examination in obstetrics, to J. M. W. SCOTT; Nellis Prize, Seniors, for best final examination, to J. M. W. SCOTT.

X-ray Progress.—The demonstration of the X-rays given before the Medical Society of the County of New York by Dr. W. J. MORTON on the evening of the 27th of April was a revelation to many who had supposed that beyond the giving of a shadowgraph of the bony skeleton and the revealing of foreign bodies in the tissues, the method gave

little other promise. These points were demonstrated to the satisfaction of the large audience present, seeing that a photograph was taken and developed showing the needle imbedded in the hand of a woman, and a second photograph, similarly taken, revealed a fracture of the thumb. Beyond this, however, it was proven that we are on the verge of being able even to photograph the cavities of the body and the interior of the skull. Thus, the interior of a snake was shown containing the skeletons of rats; and the abdominal and thoracic cavities of a fetus were distinctly outlined. The result of the demonstration satisfied all that MORTON's enthusiasm was justified, and possibly he was not far out of the way when he claimed that in the not distant future we would be able, through improvement in method, to detect even the beating of the heart! Thus is man slowly but surely unraveling the secrets of nature, and who can tell but that in the lifetime of some of us we may find out even the seat of the soul!

Mississippi State Medical Association.—At the recent session the following officers were elected for the ensuing year: Dr. W. J. GILBERT, of Varona, president; Dr. W. M. PAINE, of Aberdeen, first vice-president; Dr. D. F. DUKE, of Moss Point, second vice-president.

The following delegates to the American Medical Association were named, and the following, among other committees, were selected:

Delegates to American Medical Association: Drs. J. H. PURNELL, of Vicksburg; H. C. COOK, of Augusta; M. J. LOWERY, of Meridian; W. S. SIMS, of Meridian; J. T. B. BERRY, of Brandon; J. H. RHODES, of Jackson; J. E. DAVIS, of Columbus; W. G. KIGER, of Brunswick; R. P. WENDELL, of Aberdeen; C. M. MURRAY, of Ripley; R. D. SESSIONS, of Natchez; P. W. ROWLAND, of Coffeeville; W. H. BARR, of A. & M. College; W. W. HAMILTON, of Brooksville; W. D. EASTLAND, of Vicksburg; H. H. HARALSON, of Forest; R. E. HOWARD, of Durant.

Committee on Public Health: First district, Dr. B. A. VAUGHN; second district, C. M. MURRAY; third district, W. G. KIGER; fourth district, P. W. ROWLAND; fifth district, E. C. COLEMAN; sixth district, O. B. QUIN, of Macomb City; seventh district, J. H. RHODES, of Jackson.

Committee on Essays: Drs. T. P. LOCKWOOD, Crystal Springs; J. A. SHACKELFORD, Greenville; J. H. PURNELL, Vicksburg; W. M. PAINE, Aberdeen.

Journalistic Amenities.—"We clip the following from the New York *Medical Record*: "The American Medical Association—what is it? A correspondent asks for information as follows: I see that the American Medical Association will meet in Atlanta soon. Can you give me any data on the subject or refer to any one who can—how large a society is it, date and place of meeting? I am especially interested in JENNER and vaccination and I would like to present some matter to the society, if it is a large society and worthy of the effort."

"The foregoing inquiry shows the state of imbecility to which a presumably healthy brain may come when its possessor depends for information solely on the poor old *Record*."—*Jour. Amer. Med. Ass.*

Can the "poor old *Record*" survive this blow dealt by the journal of the great American Medical Ass.? It really ought to suspend publication.

Gift to Harvard.—A prominent merchant of Boston, whose name is not given, has advanced \$100,000 to the Harvard medical school to endow a chair of comparative pathology. It is said that this will be the first establishment of such a professorship in any of the great universities of America, for outside of veterinary schools there has been no such thing as a chair of this description in the medical departments of the colleges. The incumbent of this chair at Harvard is to be a member of the medical faculty of that university, and is to study the conditions and causes of diseases in both men and animals, and the means of avoiding and curing disease. He must devote himself to the duties of his professorship without engaging, as a rule, in private practice.

DR. W. T. COUNCILMAN, Shattuck professor of pathological anatomy at Harvard, said of the above munificent endowment:

Research in comparative pathology ought to yield fully as great results as has research in comparative physiology, etc. Of course we have to study pathology largely by experimental methods, and any study of medicine by experimental methods involves comparative pathology. A great many of the problems in modern medicine are much better illustrated on some of the inferior animals than on men.

The subject will embrace not only the study of pathological anatomy—of the lesions which are produced by disease in man and animals—and a comparison of these, but I should say that experimental work will also be done.

The great advances which have been made in the last 20 years in our knowledge of disease have really come, in large part, from the study of the diseases of the lower animals; and not only from viewing the diseases which are peculiar to them, but by infecting them with the diseases that are peculiar to man. In this way the lesions in their different stages can be studied to better advantage.

Industrious Iowan Legislators.—During the recent session of the Iowa Legislature the following medical legislation was enacted:

An act to prevent blindness, and for the care of infants affected with the disease of the eyes, and to provide a penalty for the violation thereof.

An act to prohibit the manufacture and sale of cigarettes, cigarette paper, and cigarette wrappers, and provide penalties for violation of the same.

An act to punish the keeping and maintaining of resorts for the sale and use of opium and its preparations.

An act empowering cities and towns having water supply and public sewers to regulate plumbing connecting with said sewers.

An act relating to the sale of liquors by pharmacists. This act prohibits the sale of malt liquors by druggists.

An act in relation to the spread of disease among swine.

American Laryngological Association.—The following is the program of the eighteenth annual congress of the American Laryngological Association, which will be held in Pittsburgh, Pa., May 14, 15, and 16, 1896. The presidential address will be delivered by Wm. H. DALY, M.D., of Pittsburgh, after which the following papers will be read:

1. "Some Thoughts about the Prophylaxis of Nasal Catarrh." Carl Seiler, M.D.—2. "Etiology of Deviation of the Nasal Septum." John O. Roe, M.D.—3. "The Operation for Deviation of the Nasal Septum." A. W. Watson, M.D.—4. "Some Reflections on Atrophic Rhinitis." W. P. Porcher, M.D.—5. "Recent Progress in the Treatment of Malignant Disease of the Larynx." D. Bryson Delavan, M.D.—6. "Acute Stenosis of the Larynx." W. E. Cassellberry, M.D.—7. "Laryngeal Photography with the Aid of the Arc Light." T. R. French, M.D.—8. "Spindle-celled Sarcoma of the Nasal Passage." J. E. Boylan, M.D.—9. "Naso-Pharyngeal Fibrous Tumors." E. Fletcher Ingals, M.D.—10. "Naso-Pharyngeal Fibromata." C. M. Shields, M.D.—11. "Tubercular Infection of the Lymphoid Tissue of the Pharynx and Larynx." Jonathan Wright, M.D.—12. Discussion. The Relation of Diseases of the Nose and Throat to Disorders of the Digestion. "Acute Diseases of the Nose and Throat." M. R. Brown, M.D.—"Chronic Diseases of the Nose and Throat." T. R. French, M.D.—13. A Case

of Myxedema of the Throat." J. W. Farlow, M.D.—14. "A Case of Gunshot Wound of the Pharynx." D. N. Rankin, M.D.—15. "A Contribution to the Pathological Anatomy of Ethmoid Disease." J. N. Mackenzie, M.D.—16. "Sero-Purulent Maxillary Sinusitis in Chronic Lead-poisoning." H. L. Wagner, M.D.—17. "Study of Irruption of the Teeth into the Nasal Chambers. Résumé of Reported Cases and Report of Additional Cases." A. W. MacCoy, M.D.—18. "Control of Hemorrhage in Operations on the Nose and Throat." E. Coolidge, Jr., M.D.—19. "Intermittent Dysphonia Spastica." F. I. Knight, M.D.—20. "Tracheal Stenosis." Samuel Johnston, M.D.—21. "A Case of Unusual Laryngeal Growth." J. W. Gleitsman, M.D.—22. "A report of cases of tuberculosis of the larynx with results of treatment as far as ascertained: The topical use of bromoform, formaldehyd, guaiacol, and protouncluin." S. Solis-Cohen, M.D.—23. "The Treatment of the Early Stage of Diphtheria." S. H. Chapman, M.D.—24. (a) "A Remarkable Case of Fibro chondroma of branchial origin, or so-called Supernumerary Ear, removed from the throat of an infant six weeks old." (b) "Report of a Case of Incomplete Fracture of the Left Cornu of the Thyroid Cartilage, resulting from self-inflicted violence." A. W. de Roaldes, M.D.—25. Discussion. The sequelæ of syphilis and their treatment. "The Nose." Chas. H. Knight, M.D. "The Pharynx." J. E. H. Nichols, M.D. "The Larynx." W. K. Simpson, M.D.—26. "Acute Disease of the Lingual Tonsil." H. L. Swain, M.D.—27. (a) "The Principles of Treatment of Simple Acute Laryngitis and Bronchitis." (b) "Epithelioma of the Velum Palati cured by Injection of Caustic Potash." Thomas Hubbard, M.D.—28. "A Case of Perichondritis of the Left Cricoid Cartilage Joint, from an unusual cause." H. S. Birkett, M.D.—29. "Erysipelas of the Air Passages." Wm. Porter, M.D.—30. "Some Notes of Two Cases of Sarcoma of the Nasal Chambers and Accessory Sinuses." A. A. Bliss, M.D.—31. "Some of the Unusual Manifestations of so-called Catarrhal Laryngitis." C. C. Rice, M.D.

The secretary of the association is Henry L. Swain, M.D., 232 York street, New Haven, Conn.

The Belgian Society of Obstetrics and Gynecology offers a prize of 600 francs to the writer of the best essay on the subject, "Which is the Best Procedure for the Induction of Premature Labor?" The aim in particular is to establish the utility of the elective accouchement. The prize bears the name of Dr. CHARLES JACOBS, who has done so much in Belgium toward placing gynecology on a scientific basis, and who contributed the capital, the income of which is devoted to the payment of the prize. The Society has conferred the title of honorary president on Dr. JACOBS.

Filled Cheese.—One of the most practical subjects now engaging the attention of Congress is the regulation of an industry known as the manufacture of "filled cheese." This article is put on the market as "cream cheese." In 1895 the State of Illinois alone produced 12,000,000 pounds of this cheese and sold it as a pure cream cheese. Filled cheese is described in official papers as follows:

What is now known as filled cheese was formerly called margarin cheese and oleo cheese, and is designated as imitation cheese in the laws of several States. The only essential difference between filled cheese and that made from whole milk is in the substitution of the fat of the hog for that of the cow. The natural fat of the milk, being extracted, or separated, is replaced by a good quality of lard, at the rate of two or three pounds of the latter to 100 pounds of skim-milk. At different stages in the development of this industry various fats and oils have been used, including oleo oil, margarin, cotton oil, and unmerchantable butter, as well as others still cheaper and of doubtful origin. At the present time the only fat not natural to milk which is used in making 95 per cent. or more of the filled cheese produced is neutral lard, and this of a superior quality, tasteless, odorless, and usually selling at about one cent per pound more than the best family lard. The liability to use raw materials containing the germs of disease is about the same in making genuine cheese as in making filled cheese. It is possible to thus convey the germs of disease from cows and hogs to the human family, but the danger cannot be regarded as serious in either case. The sole object to be obtained by legislation on the subject seems to be to enforce honesty and prevent fraud by compelling this form of cheese to be made and sold for exactly what it is.

Kissing the Book Condemned.—The practice of kissing the Bible as a form of oath has received its initial blow by English courts in the recent action of His Honor Judge EMDEN, whose disapproval of this ancient custom will probably be the signal for general recognition of the momentous importance that attaches to a practice so thoroughly distasteful and dangerous. The fight for relief from this long-established form has waged for some time, and the action of this gentleman is the first specific move to establish a stand against a form which ordinary intelligence at this day recognizes as unsafe and contrary to all principles of hygiene.

Living Skeletons on View.—NICOLA TESLA, the electrician, claims to have succeeded in looking through the human body. More than this, he says that he has seen clearly through the bodies of three of his assistants placed in a line,—this by means of the X-rays. TESLA has used the platino-barium-cyanide for his fluorescent screen. Mr. TESLA says that the skeleton of one of his assistants, who stood at a distance of five or six feet from the tube which was giving off the rays, was plainly seen. Every bone stood out with perfect clearness. But, more than this, Mr. TESLA states that he has finally perfected the X-ray tube to such an extent that he saw completely through the skeleton as well as the flesh. If these statements are borne out by fact, experiments showing the vital organs of human beings will be as easy as reading.

Stray X-rays.—Prof. P. G. GIBBONS, of Syracuse, N. Y., says that one of the possibilities of the Röntgen rays is the restoration of eyesight to the blind and hearing to the deaf. Dr. T. S. MIDDLTON, of the Philadelphia Medico-Chirurgical College, is positive that he will soon be able to photograph a brain. An American dentist in Paris claims that by the use of the Röntgen rays he is able to dissipate a toothache, but refuses to make public the details of what is, if true, a most remarkable discovery.

A report comes from Vienna that in the local Museum of Natural History there is an Egyptian mummy which, although human in form, from the inscription on it is supposed to be an ibis. It being too rare and valuable an object to risk the damage of opening, it was taken to the School of Photography and submitted to the X-ray, the result being a picture resembling the outline of a large bird skeleton, proving beyond doubt the nature of the contents.

Antivivisection and Physiology.—Miss FRANCES POWER COBBE, in addition to championing the cause of antivivisection, has declared her disapproval of dissection of the dead bodies of rabbits by the young ladies' physiology classes of Birmingham. Miss COBBE says "It is my sorrowful conviction that the introduction of these dissections and the new teaching generally of physiology in schools, is part of the large aim of a certain powerful party to familiarize the public mind with the idea of vivisection, to inspire interest in the result of such 'research,' and to transform natural horror of cruelty into the morbid fascination which the sight of blood and mutilation manifestly possesses for their unhappy selves." She evidently believes in keeping check on morality by ignorance of principles which are of the utmost concern to humanity; and we are inclined to charge a lack of exercise of intelligent reasoning to Miss COBBE's latest argu-

ment, which any degree of recognition must stamp as a retrograde movement, and it is therefore not likely to be given any attention. Moreover, we are of the opinion that Miss COBBE does not fully understand what is the real domain and scope of the study of physiology. Perhaps a course in the principles of that science might serve to turn Miss COBBE's attention to a more laudable purpose and one more likely of achievement than will be accomplished by her efforts to antagonize the pursuance of a study so essential to the well-being of mankind as is physiology.

Michigan Surgical and Pathological Society.—At the annual meeting of this society, in Detroit on April 22, the following officers were elected: President, Dr. M. V. MEDDAUGH; vice-president, Dr. JOHN F. MCPHERSON; secretary, Dr. ARTHUR D. HOLMES; treasurer, Dr. FRANK P. LECKNER; curators, Drs. JOSEPH SHELLFISH and R. S. LINN.

Legal Worries.—Dr. A. P. PAYNE, coroner at Terre Haute, Ind., has been made the defendant in a suit for \$10,000 damages, brought against him by CHAS. H. LUDLAM, of that town.

In Anderson, Ind., a jury in the Circuit Court has returned a verdict for \$17,400 against Dr. JACOB HARTER, of that city. The suit grew out of a big real-estate deal.

Restricting Expectoration in Brooklyn.—Brooklyn's crusade is bearing early fruit. The Board of Health in that city has requested the presidents of the street railroads, as a result of an appeal by the citizens of intelligence, to display the following notice in each street-car:

"Spitting on the floor of public conveyances is a public nuisance and a source of danger to the public health. It is hereby prohibited.

COMMISSIONER OF HEALTH."

"Employees of this company are hereby required to enforce the above order of the Health Commissioner.

SUPERINTENDENT."

Thus is established the skirmish line of another struggle which will terminate in a victory for sanitation.

Personal.—Dr. N. H. D. COX, for the past year the resident physician of the Baltimore University Hospital, will leave Baltimore for Batanga, on the west coast of Africa, where he will take charge of a hospital which is under the auspices of the Presbyterian Board of Foreign Missions.

Dr. J. PERCY WADE, for the past four years the physician in charge at the Maryland State Insane Asylum at Spring Grove, has been chosen superintendent to succeed Dr. GEORGE H. ROHÉ. Dr. WADE is 28 years old and has acquired a reputation as a specialist in mental diseases.

Dr. LOLA D. CLARK has been appointed to the chair of clinical assistant in the Eye, Ear, Nose, and Throat Hospital in New Orleans, La. Dr. CLARK is a native of Grand Rapids, Mich. She was graduated from the State University of Iowa at Iowa City.

Dr. ANTONIO LAGARIO, founder of the Chicago Pasteur Institute, has been decorated with the Cross of Chevalier of the Order of the Crown of Italy by King HUMBERT.

Dr. GEO. T. HOUGH has been elected an honorary physician on the medical staff of St. Luke's Hospital, New Bedford, Mass. He is the first to occupy the position.

Dr. J. C. HUBBARD, of South Hadley Falls, Mass., has been appointed town physician by the Board of Selectmen.

Dr. A. A. DYE has been elected mayor of Madison, Wis.

Army and Navy Items.—ARMY.—Leave of absence for one month, to take effect about May 2, 1896, is granted 1st Lieutenant Henry A. Shaw, Assistant Surgeon, Fort Snelling, Minn.

Captain Benjamin Munday, Assistant Surgeon, was relieved from duty at Fort Niobrara, Neb., on the expiration of his present sick leave, and ordered to Fort Wayne, Mich., for duty at that post.

First Lieutenant George J. Newgarden, Assistant Surgeon, was relieved from duty at Fort Wayne, Mich., and ordered to Fort Yates, N. D., for duty at that post.

Leave of absence for one month, to take effect April 20, 1896, was granted to Captain Ashton B. Heyl, Assistant Surgeon U. S. Army, Fort Thomas, Kentucky.

Leave of absence for four months, to take effect on or about May 1, 1896, was granted Captain Paul Shillock, Assistant Surgeon, Madison Barracks, N. Y.

Sick leave of absence for one month and five days was granted Captain Nathan S. Jarvis, Assistant Surgeon, Willets Point, N. Y.

NAVY.—Assistant Surgeon H. LA MOTTE was detached from the *Franklin* and granted four months' sick leave. Assistant Surgeon M. K. JOHNSON was detached from the Naval Laboratory and Department of Instruction and ordered to the *Franklin*.

Obituary.—Dr. ROBERT MACMURRY, at his home in South Salem, N. Y., on April 15. Dr. MACMURRY was an active physician for more than 50 years, but, failing in health, he moved to Salem, his native place, in the spring of 1894.

Dr. J. D. MARKLEY, in Norristown, Pa., on April 19. Dr. M. had long been connected with Pennsylvania politics. In early years he was a surgeon in the United States Navy, and after resigning was elected a member of Congress for three terms. In President JOHNSON's administration Dr. MARKLEY was a collector of internal revenue in the Sixth Pennsylvania District. In 1890 he was elected to the Pennsylvania State Senate. Dr. MARKLEY during his State Senatorial term advocated a bill for placing State lunatic asylums under the control of boards of trustees. He was a member of a large number of societies.

Dr. ISAIAH F. PRAY, at his home, 254 West Fifty-second street, New York, on April 23. He was graduated from Dartmouth College, and received his medical degree from the University of the City of New York. He was successful as a general practitioner, but made a specialty of diseases of women. Dr. PRAY was born in North Berwick, Me., and at the time of his death was 50 years of age.

Dr. CLAUDE WILSON, at his home in Waterville, N. Y., on April 22, of pneumonia, aged 42 years. He was born in Palmer, Mass., was graduated from Amherst in 1867, and finished his course in medicine in the College of Physicians and Surgeons in New York in 1874.

Dr. F. G. LUNDY, of Inkster, N. Dak., in Fargo, that State, April 20, aged 35 years. He was gradu-

ated from the University of Michigan Medical College, from the Trinity Medical College, Toronto, and the New York Polyclinic.

Dr. A. M. HELMER, in Milwaukee, Wis., on April 20. He was graduated from Ann Arbor, served during the war as a member of the surgeon-general staff, and, without leaving the service, graduated in Milwaukee.

GEO. W. BRUCE, of Winchester, Ind., on April 17, aged 74 years. He was born in Easton, O., and during the Civil War he was assistant surgeon in the Eighth Regiment and the First Indiana Cavalry.

Dr. A. B. ERNST, in Covington, Ky., April 21, aged 33 years. He was graduated at Princeton College, and took his diploma in medicine in the Ohio Medical College in 1888.

Dr. A. SCHULTZ MILLEN, at his residence near New Market, Va., April 16, of pneumonia. During the Civil War he was a surgeon in the Twenty-fifth Virginia infantry.

Dr. JOSEPH BLUIST, in Harrisburg, Pa., on April 22, aged 92 years. He was a native of Germany. He retired from active practice about 20 years ago.

Dr. JOHN F. MCKENZIE, at Le Roy, Ill., on April 16, aged 64 years. He was graduated from the Louisville Medical College.

Dr. M. W. RUSSELL, in Concord, N. H., at his residence in that city, April 16. He was graduated from Dartmouth College.

Dr. WM. TRIPP, of Carrollton, O., one of the oldest practicing physicians in the eastern section of the State, on April 19.

Dr. GEO. F. CHAMBERLAIN, at his home in Brimfield, Mass., on April 17. He was born in New Salem, Mass., in 1827.

Dr. WM. L. PHILLIPS, chief surgeon at the Soldiers' Home, Newport News, Va., on April 19, of erysipelas.

Dr. EDWIN J. PRATT, at his home, 43 West Forty-fifth street, New York, on April 20, aged 42 years.

Dr. AARON W. BURNSIDES, at his home in Chicago, of Bright's disease, on April 20, aged 66 years.

Dr. T. K. WILLIAMS, of New Philadelphia, Pa., in Salt Lake City, recently, aged 69 years.

Dr. WILLIAM ELLSBERRY, at his home in Bethel, Ohio, April 16, aged 68 years.

Dr. JOHN G. JOHNSON, in Provincetown, Mass., on April 15, of consumption.

Dr. G. W. SUTHERLAND, in Halifax, N. S., on April 20, aged 32 years.

Dr. WM. H. CONNER, at Indianapolis, Ind., on April 19, aged 67 years.

Dr. HERMAN LOWENTHAL, New York city, April 21, aged 60 years.

Dr. M. L. HOUSTON, in Springfield, O., on April 19, aged 65 years.

Dr. A. S. STRATTON, at Collier, Tenn., April 20, aged 76 years.

Dr. J. M. ANSLEY, at his home in New Windsor, Ill., April 17.

Dr. ISAAC N. DIXON, at Reisterstown, Md., on April 18.

Dr. D. D. F. BROWN, of Grand Ledge, Mich., on April 21.

Dr. O. P. GOING, in Franklin, La., on April 17.

Dr. F. F. WILKIE, at Appleton, Wis., April 16.

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THE CLASSIFICATION OF LYMPHADENOMATOUS GROWTHS

A MOST valuable and timely discussion was inaugurated before the Section of Pathology, at the last annual meeting of the British Medical Association, and, could the suggestions there made receive general adoption, much would be accomplished toward clearing up the confusion now existing in the nomenclature of a large group of cases which have not as yet been subjected to satisfactory classification.

In opening this question, Dr. W. G. SPENCER stated that lymphadenoma was a suitable name for those affections the various forms of which have one feature in common—a growth of lymphadenoid tissue closely resembling in structure that of the lymphatic ganglia. The suggestion was wisely made that in the present state of our knowledge it would be better to rest content with some general classification, such as could be inferred from clinical facts, and to use as few names as possible. The term lymphoma, should, in Dr. SPENCER's opinion, be dropped, since it includes no reference to the lymphatic gland, and requires qualification when used, and lymphadenoma should be substituted, bringing all cases under three broad classes: simple lymphadenoma, malignant lymphadenoma, and lymphadenomatosis.

Under the first category were to be classed benign cases in which there is a strictly local overgrowth of lymphadenoid tissue kept up by some cause acting from without, with no tendency to increase when such cause ceases to act. Such conditions exist in trachoma of the upper eyelids, adenoid growths in the naso-pharynx, chronic enlargements of the tonsils, hypertrophies of the nasal mucosa, and

hyperplasia of the lymphoid areas in the large and small intestines, all of which are due to some irritant acting from without upon the lymphadenoid tissue through the mucous surfaces.

For "malignant lymphadenoma" a factor was claimed distinct from the local irritation to which the simple form is ascribed, for here there is an essential tendency on the part of the cells to proliferate indefinitely; and certainly after the earlier stage has passed, no sufficient source of irritation can be found which acts simply from without. This form should be differentiated from lympho-sarcoma, and an earnest protest should be entered against the inclusion of malignant growths of adenoid tissue under the title of lymphadenomata, for the former do not confine themselves, as do the latter, to the lymphatic structures, but erode and involve the surrounding tissues. It is true that lymphadenoma may at some period take on a sarcomatous character, but sarcoma is a tumor of connective-tissue origin, and it is now generally held that leucocytes do not produce connective tissue. Moreover, the two conditions are differentiated by the frequent curability of lymphadenoma by arsenic, especially if the major portion of the malignant lymphadenomatous masses can be removed by surgical measures, arsenic seeming to neutralize the poison which causes the proliferation of the lymphoid cells, and leads to their degeneration and absorption. However, its failure to accomplish this result, if the amount of lymphadenomatous tissue is very large, does not invalidate the diagnosis. The tendency the simple form to assume malignancy is a strong argument for early surgical treatment.

The third class, or lymphadenomatosis, SPENCER would make a much wider one, including those cases

where the spleen, thymus, lymphatic ganglia, bone-marrow, and the lymphadenoid tissue of the intestinal canal or of the skin are, one or all, involved in a general disease accompanied by symptoms of anemia, hemorrhages, and swollen gums, cachexia, intermittent, irregular fever, and perhaps increase of white blood-cells—for which the terms “lymphatic cachexia,” “anemia splenica vel lymphatica,” “splenic, lymphatic, or myelogenous leucocythæmia,” “Hodgkin's disease,” “multiple lympho-sarcoma,” etc. have been used, just as in the past a number of names were applied to the different phases of tuberculosis.

The last comprehensive division of Dr. SPENCER'S is the one which will doubtless call forth the most general criticism; but until the factors which are causative in producing the various manifestations and localizations can be definitely determined by research, as has been done in the case of the tubercle bacillus, it seems to us that some such general term would be of the greatest value. Several of the above conditions are evidently very closely allied, although some are accompanied by leucocytosis and others are not, or, again, both conditions may be present at different stages of the disease.

It is certain that, since more attention has been given to the examination and enumeration of the blood-cells, leucocytosis has been found much more frequently than we previously supposed. This lends plausibility to the view that leucemia, with its peculiar blood-changes, is only one of the phases of a general disease, its characteristic cell-elements being due to the involvement of certain tissues with especial incidence. Undoubtedly, subdivisions of lymphadenomatosis will be necessary, the first of which may be those of “leucemic” and “aleucemic”; but grouping them all primarily under one head removes the difficulty from cases which stand on the border-line and from those where a leucemic condition has been said to appear and disappear in the course of the disease without influencing the prognosis.

The view that lymphadenomatosis is due to the presence of some toxic substance in the glands or in the system is borne out by the finding of the tubercle bacillus in the glandular enlargements of the so-called Hodgkin's disease; but although certain arguments can be adduced in favor of the organismal hypothesis, such as the close analogy to tuberculosis and syphilis, the finding of micro-organisms in the tissues, the pyrexia and sweating of possible toxic origin, the germicidal action of arsenic, and the location of the growth in the lym-

phatic structures connected more or less directly with the site of the infection, still it is not necessary to assume a micro-organism, as the hyperplasia may be due to some form of chemical irritant.

RADICAL CURE OF CANCER OF THE UTERUS

NOTWITHSTANDING the methods recommended, both medical and surgical, for obtaining ultimate cure of uterine cancer, it must be admitted that, up to date, recurrence, even after operation of the most radical type, has been the rule rather than the exception. During the past 15 years, attempts at cure by means of drugs and local applications have yielded to what after all is the only rational method—resort to the knife. As the general practitioner has been educated to the fact that hemorrhage from the vagina of an atypical nature calls for local examination, epithelioma of the cervix and malignant adenoma of the corpus uteri are more frequently recognized in time to enable surgery to be resorted to with some hope of radical cure. And yet, statistical data, culled from reliable sources and based on cases carefully watched for years after operation, show a very small proportion of ultimate cures relative to the number of promising—that is to say, *early*—cases operated upon. The reason would seem to be that operators have not been radical enough. Either diseased tissue has been left behind or else careless operating has resulted in infection of adjacent parts. In either event, recurrence is the rule, sooner or later.

Gynecologists and surgeons, however, have not lost heart, but have patiently worked along the lines which yielded such excellent results as regards non-recurrence in instances of mammary cancer; that is to say, have been endeavoring to effect hysterectomy after a fashion which will enable not only the uterus and the appendages to be removed, but the entire broad ligament as well and the pelvic and retroperitoneal glands, where and whence it has been proved that recurrence takes place and proceeds. In the *Bulletin* of the Johns Hopkins Hospital for February-March, 1896, the successive steps are described whereby operation of the most radical type may be performed, promising immunity from recurrence so far as local metastasis is concerned. The paper is written by Dr. CLARK, the resident gynecologist, and is based on operations performed by himself and by KELLY. The steps of the operative procedure are the following:

1. Insert bougies into the ureters under the local effects of

cocaine, to save time and conserve the patient's vital powers for the operation.

2. Place patient in the Trendelenburg posture and make abdominal incision of sufficient length to insure free manual movements.

3. Ligate upper portion of broad ligament with ovarian artery; divide vesico-uterine peritoneum around to opposite side; push bladder off, and spread layers of ligament apart, exposing uterine artery.

4. *Dissect uterine artery out for 2½ ctm. from uterus beyond its vaginal branch, and tie.*

5. Dissect ureter free in the base of the broad ligament.

6. Ligate remainder of broad ligament close to iliac vessels and cut it away from its pelvic attachment.

7. Carry dissection well down below carcinomatous area, even though cervix alone seems to be involved.

8. Proceed on the opposite side in the same manner as on the first side.

9. Perforate vagina with sharp-pointed scissors, making strong traction on uterus with small vulsellum forceps so as to pull the vagina up and make its walls tense, then ligate in small segments (1 ctm.), and cut each segment as it is tied.

10. Insert iodoformized gauze from above into raw space left by the hysterectomy; draw vesical and rectal peritoneum over this with a continuous fine silk suture.

11. Irrigate pelvic cavity and close abdomen without drainage.

Before inserting the gauze into the area involved by the carcinoma, and which has been cleared by the knife, glands are searched for along the iliac vessels and are removed. It has been found possible thus to remove all the glands situated below the pelvic brim; and it has been proved that in operable cases of cancer of the uterus metastases rarely extend beyond these glands.

It would seem as though such complete operative work would yield figures as regards immunity from recurrence better than hitherto secured, not even excepting those obtained by BYRNE, of Brooklyn, by means of the galvano-cautery. Evidently, as the sphere of vaginal hysterectomy is being widened for conditions other than cancer, it is being narrowed in the latter disease, since the radical steps outlined are only possible when working by the abdominal route. Perhaps during the past year the pendulum has swung a trifle far toward the vaginal method of operating, and we are going to find that, after all, the abdominal route, which enables us to see as well as to feel, is the preferable one for cases at all complicated, and that the bugbears of extra shock and of liability to hernia, which are set up against abdominal operations, will vanish as quickly as they appeared, as surgeons learn that both are preventable where the technique is perfect and not hurried, especially where proper time is given to that most important step, the sewing of the abdominal incision. Certainly the future holds out bright hopes to sufferers from cancer of the uterus, always provided the general practitioner desists from treating hemorrhage from the vagina by means of ergot and the like, instead of finding out the cause of the hemorrhage, which very frequently is due to beginning malignant disease of the uterus.

ORIGINAL CONTRIBUTIONS

COMMITTING TAXIDERMY UPON APPENDICITIS PATIENTS

By ROBERT T. MORRIS, M.D.

IN explanation for the character of my recently published statistics of a series of one hundred consecutive appendicitis operations with two deaths and ninety-eight recoveries, two principal sorts of interpretation have become current. The first intimates that my cases were not of the difficult kind. This idea is honest in its nature, and it is accepted by men who are not familiar with my work and who reason, by *reductio ad absurdum*, that cases giving such a small death-rate must have been uncomplicated cases. The other sort of explanation is different in its nature, and it avers that my statistics are incorrect. The simplicity of this means of escape has always rendered it rather popular since the early days of history.

The real reasons for a small death-rate in appendicitis operations will be readily appreciated by surgeons whose results are better than my own, and I wish to group a few principal points.

Postponement of Taxidermy.—When the Mikulicz drain first came into common use, I committed taxidermy upon a few appendicitis patients—stuffing them with gauze. In those days I was not very busy, and there was plenty of time to stop and think. I began to reason that if a yard of gauze were tucked into my own normal abdominal cavity this evening, I would not feel like meandering among the violets by the brookside and listening to the singing of the bobolink in the morning. Very few septic-appendicitis patients are physically stronger than I am.

There was complaint that appendicitis operative statistics were bad because cases were not operated upon early enough. I do not believe that we can take 10 healthy policemen from their beats, stuff a yard of gauze into the abdomen of each one, and get them early enough to pull many of them through. If an army were equipped with methods for getting gauze into the abdomens of their adversaries, the victors' eagles would soon scream.

Gauze packing in the peritoneal cavity does several things. It depresses the patient, and often keeps him in a condition of shock. It obstructs the bowel. It stimulates the peritoneum to throw out great quantities of decomposable lymph for the purpose of walling off the foreign body. It irritates the bladder and the ureter. If iodoform gauze is used, iodoform-poisoning will often supervene insidiously, and the surgeon who does not recognize the condition will wonder why the patient's pulse is rapid and weak. It takes very little iodoform indeed to produce a fatal effect in some sensitive young patients. It hurts cruelly to remove gauze packing from adherent peritoneum which is rudely pulled and injured afresh. Bowel loops and omentum are left in a snarl when adherent gauze is removed. The large open-

ing through which gauze packing is removed becomes the seat of post-operative ventral hernia, for the simple reason that the transversalis and internal oblique muscles have retreated so far from the margins of the incision that an imperfect abdominal wall remains, and the surgeon has nothing to work with if he wishes to repair such a hernial opening later.

There is one thing, however, that gauze packing does not do: it does not drain well. The reason why it does not drain well is because lymph fills its meshes and coagulates there. We cannot say that gauze packing is necessary, because there are many of us who are engaged in appendicitis work who do not use it. In my own practice a simple, soft, little drainage-wick, surrounded by gutta-percha tissue to prevent adhesion to peritoneum, is all-sufficient. The use of this unirritating and useful drain allows the transversalis and internal oblique muscles to be accurately sutured, with the exception of an opening which is too small for a ventral hernia afterward.

The Ghastful Gash.—There is excuse for the employment of large incisions in the practice of surgeons who are unfamiliar with abdominal adhesion work and who must unravel the patient in order to see what he contains. In trying to save life, operators should be allowed to do as well as they can. As the expert silk-buyer uses his sense of touch in making a safe selection of goods for the house, so must the expert surgeon depend upon his sense of touch for safe and neat intra-abdominal work—and a small incision accurately sutured is a refinement in surgery.

Hydrogen Dioxide and Saline Solution.—If we fail to destroy pus and septic fluids when opening an appendix abscess, the general peritoneal cavity is likely to become infected. Hydrogen dioxide and physiological saline solution are the sheet-anchors of clean appendicitis work, and I would lose a few cases from post-operative septic peritonitis if either one of these resources was omitted. I do not know what surgeons mean when they speak of leaving the free peritoneal cavity unopened, as a rule, in appendicitis abscess work. There are few cases in my practice in which it is not necessary to expose uninfected peritoneum at one or more points. But what is the harm if abscess cavities are properly cleansed with hydrogen dioxide and saline solution? I have so much confidence in our resources to-day, and in the ability of the peritoneum to manage infective processes, that fear of infecting the peritoneum does not enter into my calculations.

Early Operation.—Nearly one-half of my appendicitis cases have abscess or septic peritonitis when they are first seen, but I try as far as possible to operate before pus appears. In order to reduce the mortality rate to a fraction of one per cent. it is only necessary to make a correct diagnosis of infective appendicitis, and then operate in advance of pus formation. I differentiate catarrhal colitis with involvement of the appendix from infective appendicitis, and do not operate upon the former

class of cases. I operate upon pretty nearly every case of real infective appendicitis, no matter what stage it presents. Recently a famous surgeon said at a society meeting: "I wish that my voice were strong enough and far-reaching enough to call a halt to this operating in every case of appendicitis, regardless of the stage or the mildness of the attack," and as I read the report of those words my mind turned to the scene that I had recently witnessed of an anguished father, pacing the floor in abject misery because this great surgeon had assured him that his son's case was a mild one going on to recovery, and not requiring an operation—but the son had just died.

It is often hard to summon moral courage for proper management of mild cases. After years of painstaking work in studying the pathology of infective appendicitis, and after plainly publishing in my book the reasons why we must operate upon cases that are convalescing from a mild attack of appendicitis, I, myself, sanctioned procrastination last Thursday in the case of a beautiful little daughter who had hardly been confined to bed, who was recovering from symptoms of a mild second attack of appendicitis, and who wanted to go out and ride upon her pony instead of being operated upon. To-day, Sunday, she is dead. Mesenteric thrombosis silently stole in in the night.

The etiology and pathology of infective appendicitis are fully understood, and we know how to reduce the death-rate to a fraction of 1 per cent. Nevertheless, medical treatment is still employed with its death-rate of 10 per cent. in attacks and 30 per cent. in cases.

The dictum to operate in every case of infective appendicitis as soon as it is diagnosticated, forced me to give up my last winter's plan of operating upon appendicitis cases on Saturday afternoons before the class. As a matter of fact, these were interval cases, and I asked their physicians to send them for Saturday operations, often arranging the order of cases weeks ahead of time in order to distribute them well for the clinic; but this was so commonly misunderstood by physicians, who asked how the clinic plan could be reconciled to the dictum to operate immediately, that I had to give up Saturday appendicitis operations for the sake of saving the rule. Perhaps it was best, for it is only by observance of the rule that we can keep the appendicitis mortality rate down to a fraction of 1 per cent., and make appendicitis a disease less to be dreaded than German measles.

New York; 49 West Thirty-ninth street.

Female Physicians in London.—The Fellows of the Royal College of Surgeons of London recently adopted, by a vote of 49 to 10, a resolution declaring that women ought to be permitted to receive the diploma of that institution. According to the *Times*, this vote may have the effect of determining the council, in spite of its previous opposition, to open the examinations to female candidates.

SOME NOTES ON THE ARTIFICIAL FEEDING OF INFANTS*

By DILLON BROWN, M.D.

THE basis of every artificial food for healthy infants must be milk, and for all practical purposes this means, from necessity, cow's milk.

Therefore the "milk question" becomes of primary importance in the artificial feeding of babies. For cow's milk to be wholesome, it must come from a healthy and properly fed cow; its nutritive qualities should not be diminished by adulteration, whether with harmless substances or not; and it should be free from contamination by decomposing animal matter or by bacteria. This makes it almost as important a subject as the question of water supply, and certainly a more difficult and complicated one to solve. When we refer to cow's milk in the following notes we mean only wholesome cow's milk, which is fresh, free from adulterants and bacteria, and is obtained from healthy cows, which are properly fed on hay or grass, kept in clean stables, and given clean and fresh bedding. At milking every precaution is taken to prevent contamination of the milk by dirty hands, udders, and vessels.

Of course, artificial feeding should be discouraged if good human milk in sufficient quantity can be obtained. When cow's milk is used, it must be modified to resemble as closely as possible human milk. Cow's milk contains somewhat less fat than woman's milk, but the former contains 3.76 per cent. of albuminoids, while the latter only contains 1.94 per cent., or about one-half, and of the albuminoids, the casein in cow's milk is five times, while the albumin is only one-half, as great as in human milk. If we remember that cow's milk contains more proteids and less fat and sugar, that it is distinctly acid, while the other is slightly alkaline, we have a basis upon which to prepare the food.

The general principle underlying all methods of artificial infant-feeding is to modify cow's milk so that it will resemble as closely as possible human milk; and this is done by diluting with water to reduce the percentage of albuminoids to the proper amount, and adding enough cream and sugar of milk to raise their percentage to that in normal human milk, not forgetting to compensate for the loss brought about by the first dilution with water.

The average milk for a baby will contain 4 per cent. of fat, 7 per cent. of sugar, and 1 to 2 per cent. of proteids, which proportion can be approximately obtained by mixing cream, milk, sugar of milk, and water in proper quantities, and adding enough bicarbonate of soda or saccharated solution of lime to make the mixture slightly alkaline.

Good centrifugal cream contains about 20 per cent. of fat, but even where people have their own cow the cream is liable to be exposed to contamination by being kept too long. Therefore, it is wiser to use a cream obtained by either Meigs's or Rotch's method, although it is weaker in fat. MEIGS thus

directs: "One quart of good ordinary milk is placed in a high pitcher or other vessel, and allowed to stand in a cool place for three hours; then one pint is slowly poured off from this, care being taken that the vessel is not agitated, the object being to obtain the upper layer of fluid, rich in fat, and leave the lower, comparatively poor, portion behind." This upper half can be drawn off much more easily by having a stop-cock in the side of the vessel, half-way between the top and bottom.

MEIGS makes his food by adding three tablespoonfuls of this weak cream to the same quantity of sugar water, made by dissolving 18 dr. of sugar of milk in one pint of water; and to this is added two tablespoonfuls of limewater. If a larger quantity is needed, the same proportions are kept.

However, it seems to me that ROTCH's plan is better, as it is simpler and allows more accuracy and variety in modification. He lets a quart of good milk stand in ice-water for six hours, and siphons off from the bottom 24 oz. of milk, leaving 8 oz. of cream on the top, which will, on the average, contain 10 per cent. of fat.

Now it becomes a comparatively simple matter to modify the food by mixing the various ingredients to get any percentage of fat, proteids, and sugar.

The average milk—namely, 4 per cent. fat, 7 per cent. sugar, $1\frac{1}{2}$ per cent. proteids—will be obtained by mixing 8 oz. cream, 1 oz. lime water, 11 oz. water, and $8\frac{1}{4}$ dr. of milk-sugar (no milk); "4-7-2" milk will be obtained by mixing 8 oz. cream, $2\frac{1}{2}$ oz. milk, 1 oz. limewater, $8\frac{1}{2}$ oz. water, and $7\frac{1}{2}$ oz. milk-sugar, etc. By increasing the cream, the percentage of fat and proteids will be increased in a 20-oz. mixture by about 0.5 per cent. of the former and 0.184 per cent. of the latter for each ounce; the percentage of proteids will be increased 0.184 per cent. for each ounce of the skimmed milk., etc.

Even more accurate than the home modification of the food is the process of the Walker-Gordon Laboratory, and this undoubtedly marks an era in the use of infant-foods. The objections to it are those which apply to all patented processes, and its expense. My own experience has been that the best results are obtained by the home modification of a cow's milk which is wholesome and properly handled; and when such a milk can be obtained, the infant thrives on a raw milk much better than on a pasteurized or sterilized one. And again, I usually remove as much of the casein of the milk as possible with rennet or dilute hydrochloric acid, and substitute in its place the albumen from an egg. This gives better results, as we would expect when we remember that the proteids of cow's milk, as compared to human milk, is for casein, as 3.01 is to 0.63, while for albumen it is as 0.75 is to 1.31. In other words, cow's milk contains five times as much casein and only one-half as much albumen as human milk.

There is no doubt that some children with weak digestion require certain additions to the foregoing combinations; and the question of adding cereals, Liebig foods, milk foods, meat juice, or of sterilizing

* Read before the Hospital Graduates' Club.

pasteurizing, or peptonizing the food presents problems that would require more time to discuss than can be devoted to it in this short paper.

The farinaceous foods and the so-called milk-foods are, in my experience, rarely or never indicated, and are usually harmful. The Liebig foods are often of value in children with poor digestive powers; but it must be remembered that they never can and do not claim to be a substitute for milk, but are only to be used as a valuable addition in certain cases to properly handled and properly modified cow's milk.

THE ACTION OF STRYCHNINE IN PULMONARY CONSUMPTION IN RELATION TO THE NEUROTIC ORIGIN OF THIS DISEASE *

By THOMAS J. MAYS, A.M., M.D.

Professor of Diseases of the Chest in the Philadelphia Polyclinic, and Visiting Physician to the Rush Hospital for Consumption in Philadelphia

FREEDOM of thought is the foundation of all progress; and while this law develops a diversity of opinion in practical therapeutics so great as to give rise to the belief that no two physicians treat the same disease in the same way, it is nevertheless true that in the struggle to relieve and cure diseases we consciously or unconsciously seek and follow methods which finally lead to the adoption of the same principles, if not of the same details of treatment. This unanimity in practice is sometimes reached through certain etiological and pathological convictions which we hold of disease; or, as is most often the case, we are driven to it by the power which comes from witnessing the successful effects of well-directed medication, either in the hands of others or in our own, and in spite of any theory we may possess in regard to the origin or the mechanism of disease.

For a number of years I have said and written a good deal in favor of the neurotic origin of pulmonary consumption; and while this theory may not be perfect in all its details, I believe that it gives us a more rational explanation of the causes and of the nature of this disease than any other. Not only do I feel convinced of this, but my experience assures me that the therapeutic measures which are directly addressed to the nervous system are the most effective in the relief and cure of this disease. Led by these considerations I have employed in the treatment of this disease a number of neurotic agents, the principal one of which is strychnine, and to which I shall now devote a few remarks.

Of all the drugs in the materia medica, there is none that compares favorably with the action of strychnine in the treatment of pulmonary consumption. As is well known this agent has an elective affinity for the whole nervous system, but over and above this it possesses a special influence on the nerves which preside over the function of respiration. Its action is reputed to be wholly devoted to

the motor nervous system; but there is some reason for believing that it also affects the peripheral sensory nerves. In small doses it stimulates, in medium doses it tetanizes, and in large doses it paralyzes the nervous system. Thus, for example, a small dose invigorates the normal movements of a frog, a medium dose throws him into a stiff tetanus, while a large dose produces no appreciable stimulant or tetanic action, but brings on as marked a degree of general paralysis as if he had received a large dose of curare, or of morphine. The dose is a relative or movable quantity, however, for that which produces tetanus or paralysis at one time may act as a stimulus at another.

The action of strychnine may be compared to the shape of a cone; one side of which, from the base to the apex, represents the stimulant side of its action, the apex its tetanic action, while the opposite side, from the apex to the base, represents its paralyzing action.

How then does strychnine act in pulmonary consumption? It is taken for granted, of course, that the lung disease is merely a superficial manifestation of disorder of the pulmonary nerve supply. Therefore, the strychnine primarily raises the tone of the nervous system as a whole, and of the respiratory nerves in particular. In this way it not only increases the resistance of the lung to disease, but it aids digestion, assimilation, and blood-building. Let us say, for example, that the tone of the nervous system is depressed so far that it is located near the base of the cone, and that we wish to raise it from this point to as high a level as is consistent with health. By employing strychnine we can do this, but we must be careful to avoid the apex danger-point, yet at the same time this point must be hugged as closely as is consistent with the safety of the patient. The best way to bring about this object is to begin with a moderately small dose of the drug, say $\frac{1}{8}$ grn. four times a day; give this for one week, then increase it to $\frac{1}{4}$ grn. for another week; during the next week give $\frac{1}{2}$ grn.; the following week raise the dose to about $\frac{3}{4}$ grn., and so on, making a slight increase every week until you observe nervousness, restlessness, or twitching—the signs of the beginning of strychnine intoxication. In most cases these symptoms do not develop until $\frac{1}{2}$ or $\frac{3}{4}$ grn., or even a larger dose, is reached. It must be understood that the drug is to be given in these doses four or five times a day. The aim is to impress the nervous system with the full stimulant effect of this drug. The sooner this end is attained the better it will be for the patient. For this reason you begin with small doses and work upward as rapidly as you can with safety. After the desired point has been reached, the question arises whether it is better to go on with the largest dose, or to go back and start with the original dose. I think it is best not to wander far away from this line during the remainder of the treatment, for you do not want to lose the grip on what you have so far accomplished. Keep the strychnine-tone up to the highest level, but shun the

* Read before the Section on Neurology and Medical Jurisprudence of American Medical Association, May, 1896.

point where the strychnine-stimulus goes over into the region of tetanus and of paralysis. It is good policy, however, to reduce the dose at this point somewhat. If, for example, it is found that $\frac{1}{8}$ grn. is a maximum dose, go back to $\frac{1}{16}$ grn.; gradually increase the dose again until $\frac{1}{8}$ grn. is reached, and then return to $\frac{1}{16}$ or $\frac{1}{32}$ grn. After you have gone over the same ground several times in this see-saw fashion, you will probably find that $\frac{1}{8}$ grn. no longer produces any danger symptoms, and that you now can give as much as $\frac{1}{8}$ grn. When administered in this way the drug may be given for an indefinite period in the great majority of phthisical patients.

The remedial effects of the drug show themselves in various directions. The nervousness and sleeplessness and pain in the chest will be ameliorated, and perhaps will entirely disappear; the cough, expectoration, and the dyspnea will diminish; vomiting will abate; the appetite improve; the patient gain in flesh and in color; the weak and frequently acting heart will become quieter and stronger, the red corpuscles increase in number, and the whole outlook of the patient will become more hopeful and brighter.

Of all the drugs in our possession, strychnine makes the most profound impression on the nervous system, and, in my opinion, it, too, yields a larger measure of benefit in the treatment of pulmonary consumption than can be derived from any other single agent. In connection with it I employ well-regulated rest, good food, quinine, phenacetin, hypophosphites, electricity, cod-liver oil, etc.

In conclusion, I will not weary you by relating any examples from my experience in confirmation of what I have said¹, but will take the liberty of quoting in part a most interesting "case of phthisis apparently cured," which is reported by Dr. WILLIAM PEPPER in the December (1895) number of *The University Medical Magazine*. The patient, female, aged 21, with a decided phthisical family history, began to emaciate rapidly in March, 1893, and in less than a month she was bedridden and only weighed 100 pounds. She had high fever, night sweats, anorexia, vomiting, copious expectoration, and all the physical signs of pulmonary disintegration. She received an egg-albumen diet, and the medicinal treatment consisted of $\frac{1}{100}$ grn. of strychnine nitrate with $\frac{1}{1000}$ grn. of atropine sulphate every two hours hypodermatically, and $\frac{1}{10}$ grn. of strychnine nitrate with $\frac{1}{16}$ grn. of the double chloride of gold and sodium, and $\frac{1}{2}$ grn. of a vegetable digestive every two hours by the mouth. After a few days the amount of gold and sodium was increased to $\frac{1}{8}$ grn. every two hours. At first she showed signs of strychnine-intoxication, and the dose was reduced; but she soon resumed the original dose, and after the first two weeks she bore the drug well, although always just inside the border-line of its toxic action. During April she improved decidedly, and during May the improvement

was very rapid. By the latter part of this month she weighed 125 lbs. The abnormal physical signs and the tubercle bacilli disappeared, and in September she weighed 132 lbs. and was in perfect health. In August, 1895, she had a slight attack of pneumonia, after which all the symptoms she had had two years previously recurred, and her weight fell to 114 lbs. She was placed on her former treatment and she made a rapid recovery. On November 1 she again weighed 124 lbs., her cough and expectoration had almost disappeared. No tubercle bacilli were found since previous October.

Dr. PEPPER, in summing up the case, says that among its noteworthy points are the absence from the treatment of all cough medication and antiseptics, and the large doses of strychnine, and the double chloride of gold and sodium with which the system was kept literally saturated.

There can be no doubt that this was a most desperate and an apparently hopeless case of phthisis from its very outset, and great credit attaches to the distinguished prescriber for guiding it to such a successful termination. The question arises as to which of the agents played the most prominent rôle in bringing about this issue. From my own experience with the drugs which were employed, I believe that the strychnine is chiefly responsible for this, although in forming a correct estimate we must not lose sight of the value of the nutritious food which she received, and of the physical rest to which she was, in all probability, subjected.

Now, when we take into consideration that insanity, idiocy, hysteria, chorea, epilepsy, asthma, and all forms of nervous disorder are excessively prone to develop into pulmonary phthisis; that the former diseases are frequently converted into the latter through heredity; that all poisons like those of alcohol, syphilis, lead, mercury, influenza, whooping-cough, etc., have a power of engendering nervous disease and pulmonary consumption, and, as a matter of fact, the former are followed by the latter disease; and that the markedly beneficial action of strychnine in this disease comes exclusively through the nervous system, it does not require a very great stretch of the imagination to perceive that the neurotic element plays a leading part in the etiology of pulmonary consumption.

Philadelphia; 1829 Spruce street.

A CASE OF BRAIN TUMOR

By WILLIAM B. NOYES, M.D.

Assistant in the Department of Nervous and Children's Diseases,
Vanderbilt Clinic

THE following case is of interest as showing the relation which may exist between a general concussion and shock, such as may be produced by a severe railroad accident, with a resulting disturbance of the nervous system not unlike the traumatic neurasthenias and the symptoms produced by an extensive new growth in the brain.

The writer was called to Staten Island, December, 1895, to see a young man, aged 25, whose physical ailments dated from a crushing injury caused by

¹ "The Strychnine-treatment of Pulmonary Consumption," A. M.-S. BULLETIN, May 15, 1894.

being jammed between two railroad cars four years before. The mid-dorsal region of his back and one arm had been badly bruised. He had been comatose for four days and confined to his bed for two months. At the end of this period he seemed to have received no permanent bodily injury and was not paralyzed.

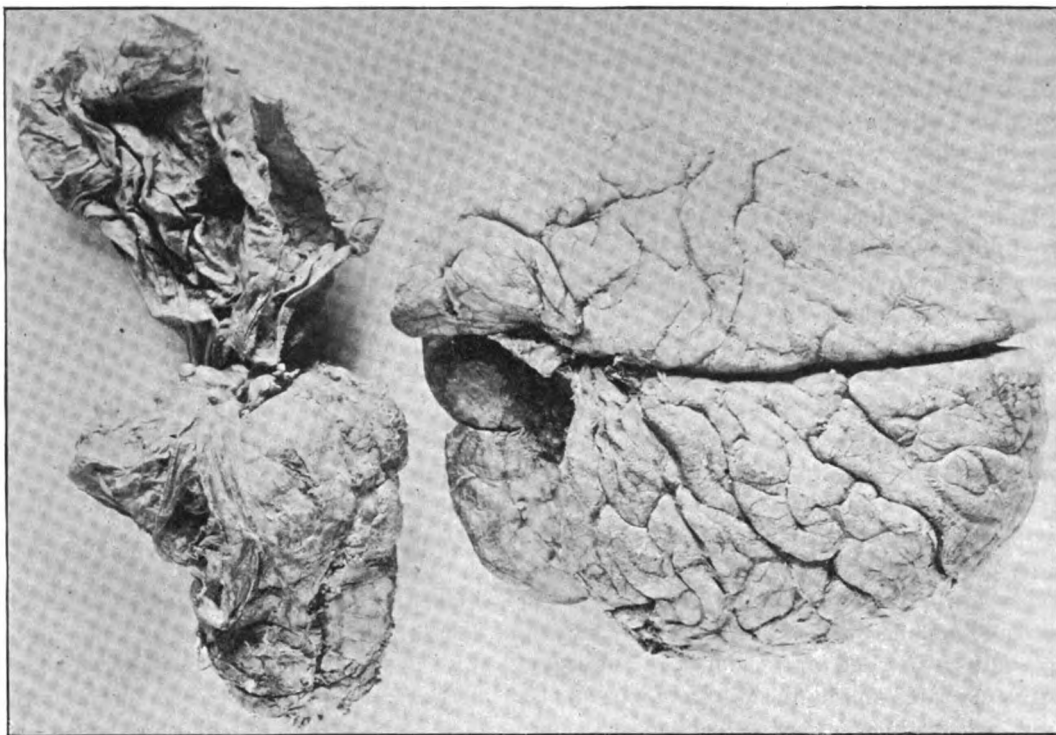
His health, however, although gradually improving, remained very poor, never entirely recovering from the effects of the accident, and he gradually developed a number of nervous symptoms which puzzled the local physicians.

During the first year after his accident, despite his shattered nervous condition, he was able to do a little work.

In September, 1894, three years after the accident, he complained that his stomach troubled him, and he vomited occasionally. In January, 1895, his

anemic and weak, suffering from spastic paraplegia and only able to walk with assistance; he presented marked ataxia, much increased knee-jerks, and ankle-clonus on both sides. Blindness and deafness were complete, yet he was mentally bright, and answered promptly all questions put to him by means of the deaf and dumb finger-sign language. The memory was unimpaired. He was in a very fretful, nervous condition, complaining bitterly of pain in his head, especially in the vertex and occipital region, and of indefinite pains equally severe in various parts of his body. There was, moreover, a recent hematoma in the occipital region, caused by a fall. A sudden jar of any part of his body seemed to make him complain, as if in pain.

The skin seemed anesthetic to the touch in most places; but after a number of seconds of delayed



A CASE OF BRAIN TUMOR

yesight began to fail. In February he began to hold his head upon one side and his eyes were worse. One day, in March, his right eye suddenly became totally blind. He became somewhat deaf. His face was paralyzed on the left side, his right arm felt "dead," but not "stiff." His legs were both "paralyzed" and "stiff."

Within 24 hours, however, he again, rather suddenly, recovered the use of his arms and legs, but in the course of two weeks he became absolutely deaf in both ears and had been deaf and blind ever since. The history since that time had been one of increasing feebleness and nervousness but with no change in the condition of the arms and legs. The nervous symptoms were said by the family to have varied from day to day.

When the patient was first seen by the writer, December, 1895, he was a man of large frame,

sensation to a pin-prick, he would begin to feel it and would cry with pain.

The buttocks and lumbar region (just below where he had been jammed by the cars) were almost hyperesthetic, with no delay of sensation. He was extremely sensitive to cold objects, much less so to warm. Extreme ataxia of the legs was present and an irregular jerky ataxia of the arms which was practically an exaggerated intention tremor. He was in a condition of very unstable equilibrium so that when pushed with a moderate degree of force he fell over sideways toward his right. The voice was monotonous and "scanning," and he stumbled very noticeably over long words. The hands were weak and registered twenty-five pounds with a dynamometer.

There was no paralysis of the external eye muscles, no reaction of the pupils to light, although they were

dilated. There was a constant twitching of the eyes. Ophthalmoscopic examination, although unsatisfactory on account of the intense nervous condition of the patient and the deficiency of the light, gave evidence of a very pale optic disk, and suggested probable optic atrophy. His face was not paralyzed, but showed very little expression. The tongue moved normally. He complained of a constriction or lump in his throat, which he said made it difficult for him to swallow anything. The heart, lungs, and arteries were normal. There was no anesthesia of the cornea or pharynx. The control of the sphincters was normal.

The first impression derived from this case was that it was some form of traumatic hysteria or "railroad spine," following his railroad accident, and that his various symptoms were purely functional. This view was rejected because of the long period of negative symptoms, the sudden apoplectic attack a year before, with its blindness, deafness, and paralysis—all of which indicated some real organic lesion. On account of the difficulty of explaining by one local lesion the combination of symptoms referable to the brain, spinal cord, and peripheral and cranial nerves, some lesion disseminated over various parts of the nervous system seemed probable. His spastic gait, ankle-clonus, jerky intention tremor, peculiar "scanning" or monotonous voice, and irregular indefinite sensory symptoms made the diagnosis of a disseminated or multiple sclerosis reasonable and adequate to properly explain the entire combination of symptoms.

Further study of the case, absolutely laying aside all the indefinite nervous symptoms, and noting the fairly clear history of vomiting, blindness, vertigo, intense headache, localized, and tenderness on touching the head, together with the well-marked cachexia, made the diagnosis of brain tumor seem more probable.

He was sent soon after this to the Methodist Episcopal Hospital with a request for further eye examination to settle the diagnosis. He there developed difficulty of deglutition, rapid pulse, opisthotonos and marked respiratory symptoms, dying suddenly a few days after admission. No attempt to examine his eyes had been made.

The autopsy was performed by Dr. WM. BELCHER. The thoracic and abdominal viscera were normal. Under the scalp posteriorly was a recent hematoma, partly absorbed. The calvarium was very thin in spots. The dura externally was normal. On removal of the brain the tentorium cerebelli was found adherent, and on its upper surface was a tumor which grew in both directions, but chiefly upward, forward, and inward. It presented internally toward the left cuneus and precuneus, but did not affect the falx cerebri. It took the place of the entire occipital lobe, and extended 20 ctm. laterally to the external limit of the hemisphere, and was in contact with the calvarium, which was thinned in the parts adjacent to the tumor. It measured 6 ctm. antero-posteriorly and vertically, fitting against the remnants of the

occipital and posterior parietal and temporal convolutions. Its general form was kidney-shaped, and was placed with its long diameter laterally. It weighed 300 gme., and was extremely hard, containing ovoid nodules. The rest of the brain was large and edematous, with flattened convolutions, and contained no other tumor. The right hemisphere was broader and shorter than the left, to make room for the mass. The right occipital lobe, the cuneus, precuneus, and the fourth and fifth temporal convolutions of the right side were all wanting, or were compressed into an indistinguishable mass. The spinal cord was absolutely normal.

The tumor was thought by Dr. BELCHER to be an endothelioma, springing from the tissues of the dura. Its exact nature was obscure, and it seemed to several who studied it to be sarcomatous, but more careful study of sections demonstrated that the diagnosis of endothelioma was correct.

The most interesting points in this case are: First, the history of the railroad accident with the resulting shock to the nervous system; second, the indefinite and largely functional nervous symptoms of the first two or three years; third, the acute and apoplectic nature of the symptoms in February and March, 1895; fourth, the marked spinal character of most of the symptoms of the last year; and, fifth, the enormous size of the tumor found in the occipital region after death.

There are frequently histories of malignant tumors recorded which seem to have followed traumatism. The following two cases of cerebral tumors show a certain amount of connection between a previous traumatic cause and the subsequent production of a brain tumor: KEEN (*Amer. Jour. Med. Sc.*, Oct., 1888) describes a man who fell from a window when a child, striking his head against a brick. Epilepsy developed when he was 23 years old. A brain tumor was removed three years later. KNAPP and BRADFORD (*Bost. Med. and Surg. Jour.*, April 4, 1890) give the history of a man who received a blow on the head in 1868, followed on the next day by convulsions. From 1886 to 1888 he developed various symptoms of a brain tumor, which was diagnosed and localized. A large tubercular tumor was successfully removed.

Tumors arising from traumatism are more frequently sarcomatous than of any other variety. SENN says, in reference to such a connection: "Sarcoma may be developed, in consequence of an injury, from the embryonic tissue which was arrested in the course of its development into mature tissue by unknown local or general influences. . . . We must therefore admit that the transformation of a benign growth and of a matrix of embryonic cells of post-natal origin into a malignant tumor is not only possible but probable, when the embryonic cells, under the influence of local or general causes, assume active tissue-proliferation, and their migration is permitted by a diminished physiological resistance on the part of adjacent tissues." This relation between a severe traumatism and a malignant growth

is said to be less frequent in endothelioma than in sarcoma.

The continued depressed state of the bodily vitality probably had more positive influence in causing the development of the tumor than the traumatism of the railroad accident.

In regard to the diagnosis, few cerebral tumors are more uncertain and indefinite in their symptoms than those growing in one of the occipital lobes, especially if they are of large size. For a short period of their history they give the definite symptoms of bilateral homonymous hemianopsia, but this symptom is soon obscured by the more or less rapid development of optic neuritis with accompanying blindness, which would arise from a tumor in any other part of the brain, and might come as early as the local eye symptoms.

As soon as the tumor attains any size it is apt to give symptoms referable to the crura cerebri or cerebelli on account of the pressure on those parts, which will give rise to motor and sensory symptoms and ataxia in various combinations. These easily make up clinical pictures of the type of ordinary spinal spastic paraplegias or multiple or combined sclerosis. Any large new growth in the brain creates disturbances of a nervous nature which are purely functional, and by irregular distribution of areas of anesthesia, hyperesthesia, and daily variation of the symptoms strongly suggest hysteria.

To show how indefinite may be the symptoms caused by occipital tumors, the following cases may be cited:

CASE I.—CARTER (*Liverpool Med.-Chir. Journal*, July, 1894).—The patient was a man aged 36 with a syphilitic history. Symptoms: Double optic neuritis, deafness of left ear. All cranial and spinal nerves normal; vertigo, defective memory, normal reflexes. He later developed a semi-comatose condition with a complete left hemiplegia. On autopsy a tumor was found in the left occipital lobe, pressing upon it and displacing for half an inch the left crus.

CASE II.—PALISADON (*St. Petersburg med. Woch.*, June, 1894).—A soldier, 26 years old, who suffered from severe headache, total blindness in both eyes, wide pupils, slight light reaction, marked cachexia. Autopsy revealed a tumor in the occipital region, destruction of the right occipital lobe, and softening of upper surface of the cerebellum.

CASE III.—MCKENNAN (*Pittsburg Med. Rev.*, 1893).—Symptoms: Periodical headache, daily varying in position. When this was intense, weakness was felt over the right side and left leg; limitation of field of vision; normal sensation; muscular movements free but fatiguing; knee-jerks exaggerated, especially on the left side. Commencing optic neuritis. Later the left leg and eyes became worse, and bilateral homonymous hemianopsia appeared more marked on the malar side of the left eye. Headache became intense and the left leg totally paralyzed and the mind somewhat affected.

On autopsy a tumor weighing 4 oz., measuring

$3\frac{1}{2} \times 2\frac{1}{2} \times 2$ inches, was found in the occipital lobe, extending to the parietal lobe lying near the longitudinal fissure.

CASE IV.—BIRDSALL and WIER (*Medical News*, April 16, 1887).—The patient was a man aged 42, of negative previous history. He suffered in 1885 from unsteadiness of gait and frequent vomiting. Then developed diplopia, paresthesia, and severe frontal headache; later, neuroretinitis and left bilateral hemianopsia, with slight difference in the pupils. Diagnosis: Tumor of right occipital lobe and cuneus, extending downward toward the tentorium cerebelli. Removed by operation in the New York Hospital.

CASE V.—KNAPP, in his work on "Intercranial Growths," Case 10, describes the case of a woman who died of pneumonia. On autopsy a calcareous nodule was found in the occipital lobe, of considerable size. Her only symptoms had been pain in the head for one month, and weakness.

CASE VI.—In the same work, Case 11, Mary S., aged 55. For 10 weeks she had suffered from severe pains in the head. For three weeks vomited frequently. She could not talk plainly, having a partial motor aphasia. There was dimness of vision. The right arm was affected. On autopsy a syphilitic tumor of the size of a lemon was found in the occipital lobe, with a variegated surface.

The multiform character of the symptoms produced by a tumor of the occipital lobe, in these six cases and in the case reported by the author, indicates that if one would arrive at a correct diagnosis of a case of suspected new growth in the occipital lobe, he must ignore all indefinite functional symptoms and try to obtain the classical symptoms common to all brain tumors—such as vomiting, severe headache, optic nerve atrophy, cachexia, and other general symptoms. Then he must attempt, by the exact localization of the tenderness and pain in the head, especially by percussion, with the aid of any incidental symptoms due to the involvement of cranial nerves, or motor and sensory changes, to determine in what part of the brain the tumor lies.

It is well to remember that while a new growth may have almost destroyed one part of the brain, the most marked symptoms may be those arising from some adjacent part of the brain which is simply suffering from irritation or compression, but has suffered no pathological change. Neglect of this fact has led to most of the mistakes that have been made in opening the skull over the wrong portion of the brain in genuine cases of brain tumor.

New York; 162 West Seventy-third street.

Pure Milk for Brooklyn.—Health Commissioner EMERY has appointed a Dairy Inspector, whose duty will be to investigate the sources of the entire milk supply of Brooklyn. He is charged with the duty of examining the cow-stables, the number of animals therein, their sanitary condition, the water they drink, and the drainage of the stables. If in his opinion any feature of any of the dairies is unsatisfactory, he has power to prohibit the sale in Brooklyn of the milk from that establishment.

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A DANGEROUS BILL.—The extremes to which anti-vivisectionists will go in their unreasoning crusade is shown by the bill now pending in Congress, which, if passed, will prohibit vivisection in the District of Columbia. This is but an entering wedge toward securing prohibition elsewhere. It is high time the profession was rising in its might and teaching fanatics the truth as regards *scientific* vivisection. The fact seems to be lost sight of by them that they possibly owe their lives to data secured by means of vivisection in the past, and that possibly their children's lives may be saved as the result of scientific vivisection as now conducted.

Fortunately protest, emanating from various sections of the country, is being made to this bill. At the last meeting of the Medical Society of the County of New York, Dr. GRANDIN introduced resolutions against the bill, which were unanimously adopted. At the meeting of the Association of Physicians, held in Washington this week, similar condemnation was dealt the bill by the president, Dr. JACOBI, and by Dr. BUSEY and others. It is expected that the American Medical Association at its Atlanta meeting will also take action adverse to the bill.

Possibly the national legislators will heed the

voice of the medical profession—of men who know the facts and who cannot countenance cruelty—and turn a deaf ear to fanatics, whose hearts may be in the right, but whose brains are in the wrong.

"WHAT FOOLS THESE MORTALS BE!"—When the Bard of Avon thus wrote he doubtless had in mind the average physician. The business depression which has existed for so long that memory of man runneth not to the contrary, has hit the doctor probably to a greater extent than anyone else, not even excepting the lawyer. The cry in the medical land is, Hard times! Families have to be reared and rent must be met, and the butcher and the baker expect their pay for the sustenance bought of them, and the doctor groans as he looks at the wrong side of his ledger and wonders why Mr. ——— does not pay him for the babe brought into the world or for the appendix successfully excised.

Meantime the great charities of the country, the hospitals, are erecting new and costly edifices and ultra-expensive operating-rooms, in order that the paupers, so called, may be fitly housed, and, where the need exists, operated upon amid surroundings such as a monarch of the effete dynasties of the Old World would be glad to occupy as a dwelling. The doctor and the surgeon make their rounds in these palatial abodes, giving drugs here and wielding the knife there, spending hours of time and years of brain-work in alleviating the sufferings of the inmates. The superintendent of these hospitals is amply paid, the ward-tenders and the nurses, and even the lawyer, when it becomes necessary to employ one, and the doctor and the surgeon receive—*nothing* except experience! It is impossible to pay the butcher and the baker and the landlord on *nothing*, and yet year in and year out we find the medical profession catering to the desires of the incorporators of these too frequently misnamed "charitable" institutions—misnamed in that scarcely any discrimination is shown in regard to the sufferers admitted, for whom the enormous amount of money has been expended in buildings and in fittings, while the doctor, the man who after all should be paid the highest, gets nothing but experience!

Now would not the times be less hard if the profession with united voice would insist on those who incorporate these palatial abodes realizing that they are as nothing compared with the man who endeavors to cure disease and to eradicate ills? Why should not the hospital surgeon receive his adequate reward, from a financial standpoint, from private incorporated hospitals, even as does the lawyer when

employed, or the minor attendants who give their time and their skill within the walls? All this carries no implication of lack of charity. It is not the pauper who is going to pay, but the wealthy men and women who lend their names and give of their abundance toward the erection of these hospitals. To go a step further, should not the State remunerate the physicians who faithfully serve the real paupers? The principle which underlies the existing state of affairs is wrong from its foundation, and the time is opportune for physicians to mass together and insist on remuneration adequate to the mental anxiety, the skill, the time spent in attending even to the poor in institutions. Sweet charity is a term of glorious meaning, but it in no sense calls upon a body of men for the amount of sacrifice which medical men constantly make, without reward here, except possibly a little fame, whatever the future may hold out to them. The profession of medicine is indeed the noblest of all, but man cannot live and support a family on such record; and even as it is the duty of the State to care for its paupers, even so should it become the duty of the State to properly remunerate those without whom it could not care for them.

What fools these mortals be! In no profession aside from medicine is it the custom not to expect prompt payment for services rendered, and yet how many professional men infuse even an iota of business methods in the collection of their accounts? Because, forsooth, certain professional men, born with gold spoons in their mouths and therefore not obliged to give thought to the morrow, have set the custom of rendering quarterly, half-yearly, or even yearly accounts, the rest seem to follow like so many sheep, for fear of antagonizing patients. All this is wrong and inconsistent with those business methods which are at the bottom of successful breadmaking. Only the man with ample capital can afford to wait six months for payment of accounts. The average doctor is fortunate if he have enough in bank to tide him over one month, and therefore the need of prompt pay for prompt and efficient service. The man who owes the doctor a bill is the doctor's enemy until the bill has been paid. He is most likely to pay it promptly while the feeling of gratitude for service rendered is present to its fullest degree, and, furthermore, if the truth were known, the average layman is glad to know monthly what the exact amount of his indebtedness is. Again, were prompt payment made for prompt service, the chances are that both layman and doctor would be the better off, in that it would

not be necessary for the one to hesitate to send for his medical adviser early in the course of a disease, lest he should respond grudgingly, the bill being unpaid; and the latter would be the better off, in that his efforts at cure would not be so frequently nullified by the fact that he is called long after the disease has made progress beyond the reach of skill or drug. The medical man would suffer the less from want and anxiety during his lifetime, and he would less frequently leave his wife and children in want when his life is sacrificed, possibly through very devotion to some critical case, were he expected to send his statements in promptly, and were it evident that he insisted upon being paid the *first* instead of, as is the custom, *last* or *not at all*.

In other respects these mortals be fools, but mostly because they themselves help charity to be abused and forget that charity of the ripest type begins at home. The infusion of business methods into the practice of medicine does not rob the profession of one jot or one tittle of nobility, but, on the contrary, adds to its common sense. There is ample room for both common sense and charity of the right sort in this world of the medical man; and when he ceases to make a fool of himself after the fashion dwelt upon, he will have more time for charity, particularly that kind which cares for the present and the future of those dependent upon him.

TWO BICYCLE DANGERS.—Anything further about the bicycle may seem superfluous. Its hygienic advantages and dangers have been so largely considered the world over that little remains for the present to be said. But with the beginning of a new season it may not be amiss to call attention to two dangers attendant upon the use of the wheel.

Of these, one applies to men chiefly and consists in the possibility of improperly adjusted saddles, causing an irritation of the perineum. The occasional occurrence of such irritation is unquestionable, and its results concern the posterior urethra rather than the prostate. Although much is said in speculation of the future "bicycle prostate," that organ is well protected by surrounding tissues, and lies too deep in the pelvis to be seriously influenced by the pressure and resulting congestion from the saddle. It is yet too early to affirm that the increase in bicycle riders will not be accompanied by an increase in the number of hypertrophied prostates; from anatomical grounds, however, such a danger appears slight. It is more probable that any perineal difficulty resulting from bicycle riding will show itself in and around the membranous urethra. It is

needless to add that urethræ which have sheltered the gonococcus in their folds are the most liable to become inflamed and the seats of abscesses. Badly fitting saddles have already caused many cases of periurethral abscesses. To avert the extreme pressure on the perineum, and to throw most of the weight on the tubera ischiorum, several "anatomical saddles" have been invented. The principle is the same in all; and although these saddles are less comfortable than the old-fashioned ones, their hygienic superiority is unquestionable. Much the same mechanical advantage may be obtained by tilting forward the ordinary saddle, so that its front part is in a considerably lower plane than the posterior part; the body-weight will then bear chiefly on the ischial tuberosities, and the perineum will touch the saddle but little.

The second danger applies equally to men and women, and has reference to over-action and possible hypertrophy of the heart. If anyone stops to count his heart-beats, after even only a moderately brisk spin, it will be found that they are decidedly accelerated, and that the cardiac over-action lasts for a considerable length of time. The amount and duration of the tachycardia will vary, naturally, with the individual, and in the same individual at different times. But the heart should have assumed its normal rate at the end of 15 or 20 minutes, and if it does not do so it may be inferred that it has more work to do than it can conveniently handle. Accordingly, the bicycle rider, whether man or woman, will only err on the side of safety by noting how much the heart can with safety stand, and will regulate his speed and distance accordingly.

DO THE POWERS OF THE BOARD OF HEALTH OF THE CITY OF NEW YORK NEED ENLARGEMENT?—Complaints reach us that the Board of Health proceeds with remarkable slowness in the abatement of palpable nuisances. Can it be that the laws in force are not stringent enough to enable the Board to correct abuses so quickly as to deter powerful corporations from maintaining nuisances? There are corporations in this city who care not in the least for the public welfare, so long as they are allowed to grow fat and rich. The serving of orders from the Board of Health on such corporate bodies effects absolutely nothing if punishment do not quickly follow the repeated breaking of an ordinance. The officers of the Board of Health are well remunerated for that which they do, and in consequence are expected by the public to render service of the most efficient type, or else steps should be taken to secure

their removal and the installation of men who care the most when they lay themselves open to blame for the neglect of duty. In the event of the Board not possessing the requisite power to follow up warning with punishment, the community has only to be so informed and it will take the steps requisite to having present powers enlarged. We look forward to the time when the Board will so fulfill its sworn duty that the farce of repeated warning to corporations for maintaining nuisances, such as burning soft coal and deluging the premises of citizens with cinders, will no longer be the rule, but that instead one warning to abate a nuisance will be followed promptly by the infliction of the punishment—fine or otherwise—which is provided for under the law.

GENERAL TREATMENT OF ANEMIAS.—There is no disease in which therapeutics may become more perfunctory or routine than in the different forms of anemia. All varieties except pernicious anemias are apt to improve under iron, in whatever form it is given, and the variation in the methods of treatment in common use is chiefly between the different preparations of iron, especially between the organic and inorganic. Many obstinate cases would probably yield much sooner if a clearer understanding of the causes of anemia were attained.

Three conditions are present in the majority of anemias: First, gastro-intestinal disturbance, with imperfect digestion, assimilation, and excretion of food, producing some form of ptomaine-poisoning or intoxication, which causes marked changes in the blood; second, failure in the action of the liver, which is the most important agent in checking the activity of the poisonous elements absorbed from the intestinal canal, and in preventing these elements from entering the general circulation; third, the uric-acid diathesis, which is closely associated with most marked gastro-intestinal troubles, and produces more or less decided blood alterations. These three agents are intimately connected with nearly all cases of anemia, and due attention should in every case be shown to their influence upon the symptoms.

If any of the occasional causes of anemia be present, such as gastric ulcer, hemorrhages of any kind, or poisoning by malaria, syphilis, tuberculosis, lead, or uremia, no headway will be made in curing the patient until these are first properly treated by appropriate drugs.

To produce the most satisfactory results in treating anemia it is necessary to follow closely the mechanism of blood-reproduction after any of the

diseases affecting the red blood-cells. This takes place largely through the agency of the red bone-marrow. As the only drug which acts directly on the metabolism of bone and marrow is phosphorus, it would seem a very important addition to our means of treating anemia from any cause.

It should be given in a pill containing phosphorous, or in the palatable elixir phosphori N. F. ($\frac{1}{4}$ grn. in each fl. dram). If hypophosphites are used RINGER says that they should never be combined in the same prescription with cod-liver oil or alcohol.

To hasten the production of new red blood-cells, a preparation of bone-marrow has been proved to be valuable, either in the form of raw freshly extracted marrow from the bones of young lambs or calves, spread on bread or in the more permanent form of a glycerin extract. W. G. THOMPSON, however, regards marrow as merely an assimilable form of fat, and rather doubts the specific action on human bone-marrow and red blood-cells. There is only about $\frac{1}{8}$ grn. of iron to an ounce of marrow, so that its favorable action is not due to the iron contained in it; but such excellent results have been obtained by it that, whether regarded as a food or a drug, it should be faithfully used.

In the diet, milk should be given in large amounts, frequently repeated during the day, for the amount of fluid in the circulation is frequently far too small and the capacity of the heart and vessels correspondingly reduced.

If milk is not well borne, a mixture of cream and hot water, with a little bicarbonate of soda and brandy in each glass, is the best substitute. Free use of cream and butter may take the place of cod-liver oil in supplying the fat which is needed in most cases.

The extent to which carbohydrates are to be used in the diet depends upon whether the patient is too lean or too fat.

Albumin in all cases must be increased. Rare meat two or three times a day is advisable ($2\frac{3}{4}$ oz. per diem according to VAN NOORDEN). A careful variation in diet to suit the condition of the digestive organs and general nutrition is advisable.

There is no disease in which general massage is followed by such satisfactory results as in anemia. Massage should be applied to the muscles of the trunk and extremities, but more especially to the abdomen, giving particular attention to this part of the body to increase the physiological activity of the gastro-intestinal tract, the spleen, and the liver. Massage properly administered will frequently cure cases of chlorosis without the use of any drugs.

Those forms of hydro-therapeutics in which bathing is followed by a prompt reaction and general stimulation of the entire system are valuable, but constant daily cold sponging or bathing must be used with great caution, lest they gradually lower the tone of the system by minute degrees. Not only cold bathing, but cold weather also, will do this. MURRI and ROSENBACH have made a careful study of certain types of anemia limited to cold weather and disappearing in the summer. Either a warmer climate or some treatment that will fortify the system against cold is necessary in such cases.

Rest in bed will serve to cure many forms of anemia without the use of drugs, and should always be insisted upon as far as possible; even the milder cases will be helped by resting in the mornings and evenings. If these general hygienic and dietetic methods, with the careful use of iron in any form that can easily be tolerated by the patient, assisted by measures affecting the gastro-intestinal system, liver, and bone-marrow, fail to affect the anemia, the substitution of arsenic with strychnine will frequently be followed by a cure.

In many cases arsenic acts directly by its anti-malarial influence, especially in those forms of anemia accompanying old malarial cachexias, where quinine has little effect. H. C. WOOD states that the drug acts on many forms of anemia in an indirect manner, by removing the morbid agent of the disease, and allowing the recuperative powers of the system to assert themselves. In other cases its action is due to the usual effect of arsenic upon general nutrition. Even in pernicious anemia there is frequently observed a temporary improvement of the patient, which is coincident with an increased output of red blood-corpuscles. In many cases this temporary gain may be made permanent by following the arsenic with another course of iron, with the idea that the arsenic has removed the cause that previously made the iron ineffective. But the attempt to cure anemia of any kind by the use of iron alone, without any of the other forms of treatment, hygienic or dietetic, is unscientific.

Keep an Eye on Cuba.—The report reaches us that yellow fever is rapidly developing in Cuba, and it behooves the authorities at Quarantine to be on the alert. In these days it should be a matter of exceeding difficulty for yellow fever to gain foothold here. Still, in view of the fact that the protracted war in Cuba has necessarily interfered with that proper sanitation which is gradually rooting out epidemics from all civilized neighborhoods, it is peculiarly essential that the health officer of the port should keep in touch with the American representatives at Havana in order that the embarkation at that point of all suspicious cases may be prevented.

GENERAL MEDICINE

Department Editors

WILLIAM CHARLES GUTH, M.D.

and

HENRY TURNER BROOKS, M.D.

Collaborators

ADOLPH ZEH, M.D., ADOLPH BARON, M.D., JOHN HOCH, M.D., WILLIAM VISSMAN, M.D., WILLIAM Y. FINCH, M.D., GEORGE W. BLANCHARD, M.D.

The Relative Importance of the Lungs and Heart in the Treatment of Acute Pneumonia.

—THOMAS J. MAYS (*The Charlotte Med. Jour.*, VIII, 1896)

In this paper the author has made an effort to show the fallacy of paying more attention to the heart than to the lungs in the management of acute cases of pneumonia.

The damming-up of blood in the lung interferes with pulmonary circulation, and an extra strain is thrown upon the heart. Those who put so much stress on the importance of keeping up the motion and integrity of the heart believe that death is caused by strangulation of this organ.

The author says that this view appears very plausible on the surface, but looking deeper we shall find other conditions antecedent to the above which have an equal share in the production of acute pneumonia. The most important of these is the nervous system. The lungs and heart are innervated principally by the pneumogastric, which is the largest and most essential nerve in the body. The sympathetic does not play such an essential part. Injury or disease of the nervous system, involving the respiratory center, is almost invariably followed by some form of pulmonary disorder, thus showing the intimate relationship between the nervous system and disease of the lungs.

The clinical association between epilepsy and lung disease is quite common; epileptics being excessively prone to die of pulmonary disease. Influenza is a specially infectious disease, with a marked affinity for the nervous system, and, according to GRAVES, for the pneumogastric nerves. This affords us an explanation why pulmonary disease, and especially pneumonia, is such a frequent accompaniment of influenza. Pneumonia is a common complication of cerebro-spinal meningitis. Among paralytics, pneumonia is prevalent.

The doctrine that disorder of the nervous system has the power of originating pneumonia is not a new one, for Dr. HUGHLINGS-JACKSON, in discussing a paper on "pulmonary paresis," said that he regarded acute pneumonia as a form of herpes zoster of the pneumogastric nerves; and Dr. FERNET, in a paper on neuritis of the pneumogastric nerves as a cause of acute pneumonia, expresses the conviction that the so-called fibrinous pneumonia is a herpes of the lungs brought about by disease of the pneumogastric nerves. At the Tokio University in Japan, Professor BAELZ has been teaching that acute pneumonia is a reflex vasomotor exudation neurosis.

According to this and other evidence, Dr. M. says, it is quite probable that pneumonia is always dependent on an impaired nerve supply of the lungs. Under the influence of a relaxed or sluggish nervous system it is sometimes seen that the heart dilates in cases of anemia, especially in that of growing girls. Owing to a want of sufficient nerve tone, the left ventricle dilates to such a

degree that the mitral valves fail to adjust themselves, and a functional mitral regurgitation supervenes. Digitalis, strychnine, or caffeine will correct this defective contractility, shrink up the heart and relieve the valvular affection; the same holds true of typhoid fever.

In pneumonia we find a similar weakness in the heart-muscle, which is followed by dilatation, and especially by dilatation of the right ventricle. The author does not believe that the most serious threatenings come from the heart in pneumonia, but in fact he believes that the heart is less vulnerable than we suppose it to be, and that it will react under apparently hopeless conditions.

The most rational therapeutics of pneumonia is one that has for its principal object the reduction of the local trouble in the lungs. A measure accomplishing this end will not only abate the pulmonary exudation or infiltration, but will bring relief to the encumbered and embarrassed heart. Such a measure, the author believes, we possess in ice-cold applications over the affected area. Mention is made of a collective record of 195 cases of pneumonia which were treated in this way, and among which there were only seven deaths, a mortality of 3.58 per cent. The efficaciousness of this treatment is not alone shown in the low mortality which it gives, but in that, as a rule, it forces the crisis to appear earlier than it does in cases treated by other means, and frequently has an abortive effect on the disease. It reduces the fever, tones up the heart and pulse, alleviates the painful breathing, promotes the pulmonary circulation, resolves exudation and infiltration, and—combined with large doses of strychnine, to support respiration and heart; morphine and atropine, to secure rest and sleep; oxygen inhalations, to relieve dyspnea; strapping chest for pleurisy when present; nourishing and easily digested foods—it makes the strongest lever that we have, says the author, for combating this disease.

Prognosis in Phthisis.—JAMES E. POLLOCK (*The Practitioner*, LVI, 1896)

The author defines phthisis as an ulcerative disease of the lung, with wasting of the tissues of the body. He classifies his cases according to *duration* of disease, for patients die in all stages, and the longest durations which he has observed were found in subjects of cavity.

Most of the cases occur between twenty and thirty years of age, which is the age of phthisis and the fatal age; after 40 the cases are fewer, and if occurring after 45 it is likely to be a slow case.

More men than women die of phthisis, and male cases are more prolonged.

As regards heredity, it strikes early, and if both parents are consumptive the disease begins at an early age. On arriving at a certain age families with a distinct heredity to phthisis will all die about the same age. The doctor has known 19 out of 22 die at the age of 25. These patients not only get the same form of disease, but are liable to the same incidents of the disease, as hemoptysis, etc.

The most important of all the prognostic factors in phthisis are inflammation and the destructive processes of the lung. So long as lung tissue is being destroyed, the case is getting worse; but as long as there is a limit to lung disease and to softening, the case is promising.

Among the destructive changes going on in the affected lung, the author regards as of vast importance fibroid degenerations. Without the fibroid process the tubercle would go on softening and

extending down the lung and so cause new infections. Tubercle itself may degenerate into fibroid; but the more common course of fibroid degeneration is a proliferation of fibrous tissue, which hardens and contracts throughout the lung; making a wall around the affected area and interfering with the actual spread of the softening; being a sort of a conservative process. A limited cavity very rarely extends downward. Fibroid is the natural revolt against active inflammatory disease in the lung.

If the diseased area becomes fairly limited by the fibroid processes and alterations surrounding it, and chiefly below it, the disease may stop for years. Another disordered form tending to chronicity is a *diffused deposit* of tubercle in the lung, which generally involves a large portion of one lung. On examination are found dry crepitant râles over the entire lung area, no adhesions existing and no collapse of alveoli; also no thickened pleura. The chest is not the typical chest of phthisis, with its small measurements and contracted sides. In the later stages there will probably occur hemoptyses. Health is below par, but the wasting moderate, and the temperature, except on rare occasions, is low. Albuminuria may be present in the later stages, and albuminoid degeneration of organs, depending on the distribution of the deposit in the lung. The inflammatory processes are in suspense; the inflammatory exudations are not there, and so a man gets on pretty well with his damaged lung.

The basic form of disease is another slow form. It begins probably as a pneumonia, which does not resolve; the crepitation persists for months.

High temperature is the measure of lung irritation: high in the evening, 101°-102°, lowest about 7 a.m. If the chill and the high temperature occur in the morning the case is to be regarded as unfavorable.

Inability to take food, occasional diarrhea, much thirst, are adverse symptoms. Cases associated with diarrhea do not do well.

Of the number of patients living after four years of diagnosed disease—in all 300—the author has observed, as regards stages, that the largest number had cavity in the lung; that the number of males afflicted exceeded that of females; that hemoptysis occurred in a large majority; that the absence of diarrhea seemed to point to longevity; that but very few (19 out of 300) had tuberculosis of the larynx; and that but a small number had marked heredity to phthisis.

The Bacteriological Examination of Nine Autopsies on Cases of Diphtheria Treated with Antitoxin.—WM. R. STOKES (*Bost. Med. and Surg. Jour.*, CXXXIII, No. 24, p. 581)

Until the work of FROSCH in 1893 it was generally believed that the diphtheria bacillus was only to be found in the local lesions. This investigation, however, proved that the bacillus invaded the internal organs by demonstrating its presence in cultures made from large amounts of material taken from the blood and various organs of individuals dead of diphtheria. KOLISKO and PALTAUF have also reported the presence of this organism in the spleen of one case; SCHMORL, in the cervical glands in 7 out of 10 cases; and BOOKER has recently obtained it in culture from the spleen, submaxillary gland, lung, and blood of the heart. KUTCHER observed it once in the liver, and once in the kidney; and WRIGHT and STOKES found it in the lung in 30 out of 31 cases, in the liver in 9 out of 29 cases, in the kidney in 6 out of 31, in the spleen in 5 out of 31, in the blood of

the heart in 5 out of 26, in the brain tissue in 2 out of 5, in the mucous membrane of the stomach in 3 cases, and often in the mesenteric, cervical, and bronchial lymphatic glands.

As a rule, the bacilli are only found in these situations in small numbers, and their occurrence here should not be considered as in any way tending to disprove the idea that diphtheria is essentially a toxemia. The bacilli must be considered as gaining admission to the circulating blood, in a certain sense, accidentally.

As a contribution to these subjects in the bacteriology of diphtheria, the results of the examination of nine autopsies on diphtheria cases performed at the Boston City Hospital since January 1 are here reported. These were all uncomplicated cases of diphtheria, in which antitoxin had been administered. The method of examination consisted in making cultures on coagulated blood-serum "slants" (Löffler's mixture) from the lung, liver, spleen, kidney, and the blood of the heart. In all of the cases the diphtheria bacillus was found post-mortem in cultures from the respiratory tract.

In eight of the nine cases of uncomplicated diphtheria to which antitoxin had been given, the bacteriological examination at the autopsy showed a more or less well-marked invasion of the blood by the pyogenic cocci. The results in detail are as follows: In five cases the streptococcus was found in the liver, spleen, kidney, and the blood of the heart; in one case in the kidney and blood of the heart; and in one case in the spleen. The pneumococcus (*Micrococcus lanceolatus*) was found only infrequently, it being observed in two cases in the kidney, in one of which the streptococcus was also found in the spleen. In the cultures from one case the only organism present was the bacillus coli communis.

In the lungs of all these cases were found the diphtheria bacillus, streptococci, pneumococci, and the staphylococcus pyogenes aureus, either alone or in various combinations.

The presence of the organisms mentioned above in the various viscera enables us to better understand the fatal issue in spite of the antitoxin given; for this agent cannot be assumed to act against any other organism than the diphtheria bacillus.

Dyspepsia and Consumption.—SOLOMON C. SMITH (*The Hospital*, XIX)

A pretubercular stage of tuberculosis was described long before the existence of microbes was suspected; this stage was practically a stage of indigestion and innutrition. Thus climate acts beneficially, more by means of its effect upon appetite and digestion than by any direct influence it has upon the lung in cases of phthisis uncomplicated with bronchitis.

The author states that certain types of dyspepsia are much more apt than others to be followed by consumption, and that their occurrence in people who are predisposed to the disease should be looked upon with much suspicion, and the physician should in these cases resort to more than mere treatment by drugs.

Regarding dyspepsia as a complication of phthisis, it must be remembered that too often it is the case that the condition of indigestion which has led up to the disease continues through its early stages, aggravating it in every way. Later on, new forms of dyspepsia are developed which are the direct products of the major malady. The various forms of indigestion associated with phthisis hold a chief place in determining the progress of the disease.

OBSTETRICS; GYNECOLOGY; PEDIATRICS

Department Editor

THOMAS S. SOUTHWORTH, M.D.

Collaborators

GEORGE G. WARD, Jr., M.D., GEORGE R. WHITE, M.D.,
EDWARD N. LIELL, M.D., WILLIAM B. NOYES, M.D.

Pneumothorax in a Child of Five Years.—ALBERT JOSIAS (*Rev. Mens. des Mal. de l'Enfance*, XIV, March, 1896)

The occurrence of pneumothorax in infancy is not unknown, but is far from being as common as in the adult. Tuberculosis is the cause in the majority of cases. Pneumonia, broncho-pneumonia, abscess, or gangrene of the lung may also produce it. It may be precipitated by vomiting. Pneumothorax has been developed at the same time as a subcutaneous emphysema after tracheotomy, and as a complication of pertussis. Finally SEVESTE has reported a case of pneumothorax which was attributed to a syphilitic gumma. Of 15 cases quoted by BARTLEY and SANNÉ, 10 occurred in infants less than 5 years, and 5 in children from 7 to 15 years old, which disproportion is explained by the fact that tuberculosis can cause this perforation at any age, while broncho-pneumonia only between the ages of 2 to 4 years.

As in the adult, pneumothorax is more frequent on the left side, and occurs in more rapid tubercular processes, but in the infant the perforation is generally situated at the base. We know that pulmonary consumption in children localizes itself more frequently in the lower portions or base of the lungs. The diagnosis of this complication is very difficult, and frequently is one of the surprises of the autopsy table.

In the case reported, the disease began with all the physical signs and symptoms of an ordinary pneumonia. It continued so long, with fever and progressive emaciation, that a diagnosis of tuberculosis was made. Next the discovery of amphoric breathing and a metallic tinkle made it possible to recognize the existence of pneumothorax, which developed about the sixteenth day of the disease. Death occurred on the twenty-third day. When pneumothorax occurs as a complication of rapid tuberculosis no treatment is of any avail, for it is a fatal accident and only palliative treatment is of any value.

Idiopathic Tetany in Infants.—BONOME and CER-
VESATO (*La Peditria*, 1895, Nos. 5-6)

The authors describe in detail the clinical histories of two infants, aged 1 and 2 years respectively, who were affected with tetany, and who subsequently died and came to autopsy. One case had suffered from gastro-enteritis and rachitis; the other case seemed to be absolutely idiopathic, resembling the class of cases described by ESCHERICH, who considered tetany, both in infancy and in adults, an independent disease, and not the result of either intestinal auto-intoxication or cranial rickets, as is commonly held.

In these two cases, the peculiar contraction of the extremities, the laryngeal spasm, and general convulsions occurred, a combination of symptoms identical with those produced in dogs by removing the thyroid glands. This association of symptoms has been noted by various authors, and makes possible to approach and unite in one group different spasmodic affections of young infants.

The most interesting pathological findings were in the nervous system. The spinal cord in the two cases showed a change in both the cervical and lumbar enlargements. The meninges and the exterior of the cord were normal. Toward the center there was a rarefaction of the white fibers, and in the neighborhood of the gray matter there was nothing left but neuroglia.

The gray matter was the seat of marked alterations represented by atrophy and rarefaction of the ganglion cells, together with atrophy and a varicose condition of the fibers, increase of the neuroglia cells, partial absorption of the newly formed neuroglia and the formation of irregular spaces which in places resembled syringomyelia. There existed therefore a poliomyelitis diffused to the adjacent portions of the white fiber tracts. The lesions of the gray matter were more pronounced in the anterior horns, especially in the more internal groups of these cells of the cornua, which explains the absence of genuine paralysis and atrophy.

These results confirm and complete the doctrine of WEISS, who holds that the lesion of tetany is a lesion of certain cells of the anterior horns of the gray matter of the spinal cord.

Pruritus of the Genitals.—HUNTER ROBB (*Cleveland Med. Gaz.*, 1896, No. 4, p. 204)

Pruritus of the vulva is not a disease *per se*, but a symptom which may accompany several quite different affections. In many cases the itching is due to local anatomical changes. Diseases of the vulva and vagina, uterus, and its appendages, bladder, urethra, and rectum; carcinoma, pregnancy, the menopause, masturbation, parasites, obstructed and enlarged sebaceous follicles on the inner surface of the vestibule are all factors in the etiology. The systemic diseases in which pruritus is sometimes a symptom are diabetes, lithemia, and the various neuroses.

As to treatment, unfortunately, the patient rarely comes to us at the very beginning, and it is often impossible to be certain how much of the excoriation is due to the underlying cause, and how much is due to a dermatitis caused by the efforts of the patient to obtain relief by scratching. Examination of the genitals and surrounding organs and tissues, as also the urine, should generally be insisted upon to arrive at a correct diagnosis as to treatment. When the vulva is dry the surface should be kept moist, ointments being preferable to evaporating lotions. Warmth in bed frequently aggravates the condition, codeine or opium and hyoscyamus thus being often called for. The general health of the patient should always be attended to. Various remedies are of good purpose locally, at times, such as a 2-per-cent. solution of nitrate of silver, a 2- to 10-per-cent. ointment of salicylic acid, or a 2-per-cent. solution of carbolic acid.

As internal remedies to decrease irritation of the peripheral nerves, belladonna and the bromides are advocated. In obstinate cases a cutting operation or excision of the affected area has often proved successful.

Correction.—On page 562 of the BULLETIN, April 25, the first line of the title of the last digest on the page should read:

"Observations upon Strictures of the Female" instead of

"The So-called Interstitial Cells of the Testis and"

SOCIETY MEETINGS

THE NEW YORK COUNTY MEDICAL SOCIETY

STATED MEETING

April 27, 1896

EDWARD D. FISHER, M.D., President

The X-Ray in Medicine.—Dr. WILLIAM JAMES MORTON gave a lecture on this subject, with demonstrations and an exhibition of lantern slides. He prefaced his remarks by saying that the prints from X-ray negatives were often not satisfactory, and that the negatives themselves showed far more accuracy and detail. The apparatus which he employed consisted of a one-fourth horse-power, provided with a brake wheel so constructed as to rapidly interrupt the current flowing through the primary of a powerful induction coil. This coil was capable of giving a $4\frac{1}{2}$ -in. spark. He said that this work might be done with the aid of a static machine, by connecting it with a Crookes tube. In all the tubes that he had used he found that the vacuum steadily rose after a few hours of work until a point was reached when the discharge preferred going around the tube to going through it, and at this time one wished to have even a still more powerful spark machine. The tube which he preferred to use is what is called a "focus tube." It has two entering electrodes, the anode being a disk of platinum so arranged at an angle that the X-rays are concentrated at a certain point. The advantage is that as the radiant energy emanates from a single spot the definition of the pictures is much better than is ordinarily obtained from the Crookes tubes.

The speaker then exhibited Professor EDISON's "fluoroscope," and allowed a number of those present to see the bones in their own hands. He then demonstrated on a larger scale, by means of a large screen coated with tungstate-of-sodium crystals, the bones of the hand and forearm, a bottle of pills inclosed in a leather case, etc. He next proceeded to demonstrate the method of taking an X-ray photograph. A vacuum bulb was selected and placed about one foot above the object to be photographed, which in this instance was a woman's hand in which a needle was supposed to be embedded. To avoid involuntary movements of the hand it was fastened to the plate-holder by straps of adhesive plaster. The lecturer said that the success of such pictures depended largely on the skill and judgment exercised in posturing the patient or the limb, and in arranging the bulb so that its fan-like action would correspond to the long axis of the limb or part to be photographed. While the picture was being taken, in order to make sure that the apparatus was working properly, Dr. MORTON viewed his own hand through a small fluoroscope. He had found a decided advantage in "flashing" on the light. If, on placing the ear near the vacuum tube, one heard a sort of grating sound, one could be assured that the tube was working well. An exposure of 11 minutes was given in this instance, including several stops made to allow the tube to cool off. The resulting negative showed very clearly that a needle was located in the middle of the hand. A second photograph was taken of the hand of a physician in the audience. It showed the line of an old fracture of one of the phalanges.

A number of radiographs were then shown on a

screen by means of a lantern. Among others was shown a radiograph taken with the aid of a static machine, in which the flesh of the hand was entirely obliterated, and also one in which the bones of the hand had been partially obliterated so that objects underneath the bone could be seen. One of the pictures was of a will which had been sealed in an envelope, and then photographed, using a very feeble source of illumination in order to avoid obliterating the handwriting. An excellent radiograph was shown of a lower extremity, in which could be plainly seen the femur, the patella, the tibia, and fibula, and even the quadriceps extensor tendon. Another picture showed an ununited fracture of the radius near the wrist. It had been taken through the splints and bandages, yet none of these appeared in the picture, with the exception of the pins used to hold the bandage. The fracture was distinctly visible. A most striking picture was one of a child, showing the bones of the body and limbs, and some of the organs. Dr. MORTON stated that in the negative, even some of the convolutions of the brain were visible.

In conclusion, Dr. MORTON said that there was a far greater future for the X-ray phenomena than many had supposed. For snap-shot work, and for examining the organs of the body quickly and systematically, the fluoroscope must be considered to be without a rival. By placing the whole body before a fluoroscopic screen, he had been enabled to see the vertebrae, the large bones of the body, and to mark out the position of the various organs, and even to see the beating of the heart. We, therefore, had a new and most important means of diagnosis, far ahead of anything that had ever before been placed in our hands.

HOSPITAL GRADUATES' CLUB

March 26, 1896

CHARLES H. KNIGHT, M.D., President

Artificial Infant-feeding.—Dr. DILLON BROWN read a paper on this subject. See p. 619.

Dr. SOUTHWORTH said that the subject which Dr. BROWN brought up is very opportune and of great interest to the practitioner, especially so since the work recently done on the other side of the water by ROACH in connection with milk. We have to consider the order in which the different constituents in ordinary milk are absorbed. Of these, sugar is most readily absorbed. We should increase the percentage of fat, otherwise rickety conditions will develop. The question of sugar is too often omitted. Patients frequently receive too little. In summer complaint, children cannot digest casein. In these cases they can live on sugar. Malted milk and Mellin's food come in for temporary use. It has been thought we could give sugar freely. He found that many children cannot take fat. He had often observed constant regurgitation of fat; and when this condition developed, he always looked to percentage of fat ingested.

Dr. C. W. CUTLER wished to indorse the views expressed by Dr. SOUTHWORTH in regard to the use of fats in the feeding of children. Fat often passes unchanged, and, as has already been shown by JACOBI, can be found in the feces. When a child can take plain cow's milk, it is better than prepared forms. He had had excellent results from the use of malted milk, and now uses it very extensively. If prepared about as the directions say, and in the proper dilution, it acts very well in the majority of cases. It is much less apt to cause regurgitation

than other artificial foods he has tried. Addition of cream will lessen liability to rickets.

Dr. JOHN DORNING said that among the wealthy it is no task to feed a child. We can have recourse to all facilities to properly prepare the milk. As the greatest mortality is among the poor, particular attention should be given to that class of people. In tenement-house practice you may give directions as to sugar, percentage of fat, sterilization; and in the majority of instances the directions will not be carried out. Mothers will almost always have recourse to some patent food. While children may apparently thrive on prepared foods, if carefully examined it will be found that they do not thrive. Some form of rickets will be found. Children cannot digest starchy substances. Cow's milk coagulates in large masses; mother's milk coagulates in flakes like small snowflakes. If starch is added to milk it will be found in the stools. Its action is only that of an attenuant. The danger in using starch lies in the fermentation it produces, resulting in gastro-enteritis. He was surprised to hear malted milk spoken of in words of praise. Children raised on it will have rickets. He would not advocate its use except temporarily. Mixture of milk and barley water, equal parts, is sometimes very good. Before we say a child receives too much fat, we must consider the amount of fat ingested. It is the exception to find all the fat digested. Even in breast-fed children it will be found in the feces. As food, he used three parts of the top portion of milk which had stood for several hours, mixed with five parts of boiled water. To this was added either peptogenic milk powder or one heaping teaspoonful of milk-sugar. With this preparation the percentage of rickets would be low. Sterilization of milk has saved many lives in our great cities during the summer; in cold weather pasteurized milk is not necessary; it destroys the life of the milk. In the summer, if the child can be sent into the country, raw cow's milk may be advantageously used.

Dr. DILLON BROWN, in closing the discussion, said that in reading the paper he only wished to call attention to the consumption of milk under ordinary circumstances, and not in cases of malnutrition. He also wanted to emphasize the fact that cow's milk had but 0.3 per cent. of albumin, the rest casein. He thought nothing could be simpler than Meig's method of preparing milk. It was in reach of the poor. Milk prepared by Gaertner's method is likewise good, and can be cheaply prepared. Addition of fat to milk gives child proper nourishment and makes casein less dense.

NEW YORK ACADEMY OF MEDICINE

SECTION ON GENERAL MEDICINE

April 21, 1896

REYNOLD W. WILCOX, M.D., Chairman

The Treatment of Pulmonary Tuberculosis.—

Dr. IRWIN HOWELL HANCE read a paper on this subject. He said that of the medicines recommended for the treatment of this disease, by far the most important, and most generally used, was creosote. There was a wide diversity of opinion in the profession as to its action, and also as regards the dosage. His own experience had led him to prefer moderate doses, for these usually accomplished all that the larger doses did, and avoided the gastric irritation which was prone to follow the too free exhibition of creosote. It can be given in whisky

and rum, in tincture of gentian and sherry wine, and in capsules. An economical and very reliable mode of administration was to fill No. 2 capsules lightly with bismuth subcarbonate, and then drop in two or three drops of creosote. Creosote should always be given on a full stomach, and when taken in pills or capsules should be followed by half a glass of milk or water. Guaiacol had proved fairly useful in moderate doses—5 to 15 min.; but when given endermically or hypodermically, one should be on the watch for profound depression and too great lowering of the temperature. Its hypodermic administration was best effected by giving it in a 33-per-cent. solution of sterilized sweet-almond oil. Some observers, notably BARUCH, in this country were strongly in favor of hydro-therapy. The rain-bath was the best form, and the temperature should be usually about 65° F. As regards the tuberculin treatment, he was of the opinion that it could be safely used for diagnostic purposes, and that, when used with caution in conjunction with the climatic treatment, the patients possessed a greater power of resistance than when subjected to climatic treatment alone. For the climatic treatment, it was desirable that the locality chosen should be at least 2000 feet above the level of the sea, that the temperature should not be very variable, and that the air should be free from such contamination as is found in the neighborhood of large towns or cities. The febrile cases of phthisis should be treated outdoors until the temperature has remained normal for a number of weeks, but care should be taken that exercise is not carried to the point of producing fatigue. The speaker laid special stress upon the importance and wisdom of candidly telling the patient at the very outset the nature of his disease.

Dr. BEVERLEY ROBINSON said that credit was due to BOUCHARD more than to anyone else for establishing the creosote treatment on a firm basis. Following his instruction, the speaker said he had begun by administering creosote in a mixture of glycerin and whisky, and experience had taught him that this was by far the best method. The creosote should be given in moderate doses. For the last few years he had derived much satisfaction from treating cases of pulmonary tuberculosis with inhalations of creosote. The creosote in alcohol solution should be mixed with hot water in a croup-kettle, and the patient made to breathe the vapor for a certain time at intervals through the day. Although it was rare for creosote to exert any deleterious action on the kidneys when not given in excessive doses, it was well to examine the urine once a week. Creosote probably benefited these persons, not only by improving the general nutrition, but by rendering the "soil" less suitable for the development of the tubercle bacilli. His experience had been that there was a greater tendency to hemorrhage in the high altitudes of Colorado than at an equal elevation in Switzerland. Those who when well, dreaded the cold should be sent to Asheville, N. C., or to Georgia rather than to the Adirondacks. It had long been known in France that the best results were obtained in the treatment of consumptives in those sanatoria located in the vicinity of sulphur springs.

Dr. ANDREW H. SMITH said that the physician of to-day should approach the treatment of a consumptive with two great facts firmly fixed in his mind, viz.: (1) that there was an antecedent aberration from perfect health; and (2) that the successful treatment depended on attention to many minute details. He had seen some wonderful instances of improvement, even in advanced cases, from a resort

to rectal injections of defibrinated beef-blood. Assimilation was also often improved by oxygen inhalations. He believed that playing wind instruments, or any systematic methods of pulmonary gymnastics, was a therapeutic resource worthy of careful attention and trial. Creosote appeared to him to act beneficially chiefly by its power to check the bronchial catarrh. The best results in this country from climatic treatment he had seen attained at El Paso.

Dr. S. BARUCH said that it seemed to him decidedly unwise to express any but a very guarded opinion as to the patient's true condition until the physician had become thoroughly acquainted with his patient's temperament. The successful treatment of pulmonary tuberculosis stood on the tripod—air, water, and diet. The air should be pure and dry, and of fairly even temperature, and the patient should live in the fresh air night and day. It should be remembered, however, that much good could be accomplished without any change of climate. Patients having a temperature over 99.5° F. should not exercise at all, but should rest in the open air, and should have plenty of sunshine. The stimulating effect of the rain-bath on the cutaneous vessels was beyond cavil. The temperature of the water should not be below 65° F., and the pressure should be at least 25 pounds. He had found that creosote was extremely liable to disturb the stomach, and that it was of but little value except to control bronchial complications. Among other nutritious articles might be mentioned Philadelphia cream cheese.

Dr. HENRY P. LOOMIS said that he had never seen any benefit from the use of tuberculin. The creosote treatment he had used for a number of years, and in the manner advocated in the paper. In choosing the climate, one should have in mind the individual temperament rather than the disease. In that stage of the disease in which there is no gastric disturbance the usual three meals a day would not be found sufficient to keep up the nutrition to the proper standard. Stimulants were chiefly of use in the last stage of the disease.

Dr. WALTER JAMES said that too little attention was ordinarily paid to the patient's mental attitude toward his disease. Grief or sudden nervous shock often resulted in a sudden exacerbation of the disease. If the patient were not told just the nature of his malady, the physician could not expect from him the necessary co-operation. The value of creosote in phthisis was attested by physicians in all parts of the world, and in addition to its beneficial effect on the general nutrition, his own experience had led him to believe that it had some specific action. He said this because he had given creosote to other cases of malnutrition without observing as marked benefit as he was accustomed to see in pulmonary tuberculosis. The climate selected should differ materially from that in which the individual contracted the disease.

Dr. HUTCHINSON, of Buffalo, said that the burden of the whole discussion could be summed up by saying that the best treatment for pulmonary tuberculosis was that by which the patient's powers of resistance were most increased; in other words those measures which would best promote the vigor and activity of the leucocytes. Any climate would answer that would permit of the individual remaining outdoors. The lower animals, when in their natural state, were for the most part immune to pulmonary tuberculosis, as were also the uncivilized Indians, but the opposite was true of domesticated animals and civilized Indians. Those tissues which

were the last to appear were usually the first to go. The lung was the youngest tissue in the human body, and its right apex—that part in which in 90 per cent. of the cases tuberculosis first developed—was now considered to be the atrophying rudiment of a lobe which originally extended up toward the jaw.

Dr. HANCE, in closing the discussion, said that an excellent and palatable nutrient was obtained by mixing somatose with milk or cocoa. As a rule stimulants should be avoided except in the third stage. In his opinion, the climatic treatment was *the* method; it was certainly the one most promptly adopted by medical men who were afflicted with pulmonary tuberculosis.

SECTION ON OBSTETRICS AND GYNECOLOGY

April 23, 1896

W. R. PRYOR, M.D., Chairman

Ligation of the Internal Iliac Artery.—Dr. W. R. PRYOR said that recently Dr. W. M. POLK had suggested the ligation of the anterior branch of the internal iliac when there was reason to suspect the extension of malignant disease beyond the uterine arteries. The object of this was to secure a bloodless field and a more thorough dissection of the broad ligament. Unfortunately, the anterior branch of this artery is not sufficiently long for the application of two ligatures in a large proportion of cases, and in about 50 per cent. it is entirely absent. The speaker then presented a dissection, showing that if this anterior branch could be ligated the arrangement of the vessels was such that the utero-vaginal circulation would not be controlled. There was no vaginal artery in this specimen. He thought, therefore, it was far better to adopt KELLY's plan of ligating the uterine arteries outside of the uterus. The most important gland to remove is the one over the obturator foramen, and it would be impossible to remove this by the plan suggested by POLK. BRYANT, DAWBARN, and others had recently published cases in which the disease had been arrested for some time by ligating the arteries supplying the part. He believed we could ligate both internal iliacs through the abdomen, and so not only secure a bloodless field for operating, but also starve out the glands.

Dr. W. M. POLK also presented a dissection to illustrate the blood-supply of the pelvis. He said that the middle hemorrhoidal artery gave off a branch which ran a certain distance, and then appeared on the under surface of the utero-sacral ligament, where it anastomosed with branches of the uterine artery. This posterior vaginal branch of the middle hemorrhoidal must of necessity play an important part in the bleeding which would occur on attempting a complete dissection of the tissues at the floor of the pelvis. This vessel was of such a size that it could not be ignored. It had been found that occasionally this vessel assumed a part of the work of the uterine artery. The relation of the middle hemorrhoidal to the rectum was such as to inevitably lead to the establishment of the circulation by a reflux current. Regarding the ligation of the iliacs, he said that it did not cut off any more blood than if the anterior branch alone had been ligated. In the vast majority of instances the internal iliac divides into an anterior and a posterior branch to supply the structures to be dissected out. In carcinoma of the uterus he believed that not only were the hypogastric glands involved between the two branches of the internal iliac, but also the sacral glands. The latter could not be reached except by an extensive dissection

along the anterior line of the sacrum. This involved the ligation of the middle sacral, and under these circumstances it might be well to ligate the internal iliac. Under the best operative procedures carcinoma of the cervix was a condition which could hardly be so thoroughly treated by operation through the vagina as to prevent recurrence.

Gall-bladder Cyst.—Dr. BERNARD GORDON said that on March 23 a patient had been admitted to Beth Israel Hospital with an ovarian cyst. She was 32 years of age, had been married 14 years, and had had five children. Nearly 14 years ago she had had a very severe attack of colic, located at the epigastrium, followed by attacks of pain at intervals of a few weeks for two years. For the past year and a half there had been more or less pelvic pain. At the operation on March 26 a small ovarian cyst was found on the right side, which was punctured. On the other side was an abscess of the ovary, but a normal tube. A larger cyst, about nine inches long, contained gelatinous fluid, and three gallstones. The patient rallied well from the operation, the temperature did not rise above 100.4° F., and she made a good recovery.

Extensive Adhesions; Method of Abdominal Suture.—Dr. POLAK said that in a laparotomy, done last January, the entire sigmoid, the rectum, the head of the colon, and about two-and-a-half feet of the ileum were adherent to a cystoma and a fibroid tumor. The adhesions were carefully dissected off, and the uterus removed by the method of Baer. A running suture of silk was used in this case. The patient was out of bed in four weeks, and made a good recovery. On April 10 she returned, complaining of colicky pains. She had a slight evening rise of temperature. On opening the abdomen the sigmoid, rectum, and head of the colon, with a portion of the ileum, were found matted together by firm adhesions. These were separated, and the cavity washed out and drained. This secondary laparotomy gave an opportunity for examining the condition of the line of incision after this running through-and-through suture. The incision had been 3½ in. long. Examination showed that the tissues had slipped from the suture, leaving only a peritoneal and skin union.

Dr. H. J. GARRIGUES presented a new form of self-retaining vaginal speculum, giving a large and smooth canal.

Reflex Symptoms due to Abnormal Conditions of the Uterus which Cause Subinvolution or Chronic Enlargement.—Dr. W. GILL WYLIE read a paper with this title. He said that he had already called attention to the fact that uterine derangement in some instances produced or excited the development of a condition of mental depression, sometimes true melancholia. In these cases reduction of the size of the uterus had been followed by a relief of the melancholia and of the other symptoms. This view, he was aware, had not been as yet fully accepted by the medical profession. Although there might be a strong predisposing cause in some cases, the cure of the local cause had been sufficient to completely relieve the mental condition in cases that had been pronounced to be melancholia by well-known alienists. These were the cases which were designated by the older writers as "lacteal insanity." The causes of this condition are the ordinary causes of subinvolution; and where this subinvolution is not complicated by salpingitis it is easily relieved by local measures. The most intractable forms of chronic enlargement are those in which there is endometritis complicated by a fibromatous degeneration.

Dr. W. EVELYN PORTER said that he had had an opportunity of watching a number of Dr. WYLIE's cases. We must assume a predisposition to nervous disorder or to actual nervous or mental disease. Of course it was only in a comparatively small number of cases of subinvolution that such symptoms were observed. The reason that recurrences take place after simple curetting was that there was actual disease of the cervix; hence, a thorough amputation of the cervix was the better procedure. In the milder types of nervous prostration in this class of cases it would be better to employ mild local treatment rather than operative.

Dr. PAUL F. MUNDÉ said that in a paper which he had read before the Neurological Section of this Academy on March 3, 1886, entitled "Clinical Observations of Reflex Genital Neuroses in the Female," he had covered very much the same ground as had been gone over in the paper read this evening. He had stated at that time that while he was free to admit that women might have many aches and pains not related to disease of the genital organs, he felt that there were certain neuroses dependent upon such disorders. He had seen very many cases of reflex pain dependent upon disease of the sexual organs, yet he had been impressed with the great difficulty of determining in a given case the exact origin and causation of many of these neuroses. In his experience, few of these cases only had been cured by operation on the genital organs. He would admit that a woman having a heavy subinvolved uterus would be greatly benefited by reducing the uterus to its normal size, although he did not understand just how this improvement was brought about. But he would draw the line at removing the entire uterus simply because a woman was suffering from more or less mental disturbance.

Dr. SELL said that over a year ago he had dismissed from treatment a lady who had received local treatment for six years from her physician, although for what he could not say. This woman had become perfectly hysterical and neurasthenic. On examination the speaker said he had found a subinvolved uterus, and had treated her locally at long intervals, together with internal medication, chiefly with calcium fluoride. It was to this medication that he desired to direct special attention. He was a firm believer in the efficacy of that somewhat neglected department—medical gynecology.

Dr. H. L. COLLYER cited a case in which a woman who had been in an insane-asylum had been completely cured by an operation on a diseased uterus and appendages. Many women were aware of the mental disturbance existing in connection with uterine disease, and in the milder cases curettage might be sufficient to effect a cure.

Dr. H. J. BOLDT said that we should not forget the influence on the mind of change of surroundings or operative procedures. He recalled a case of a woman with an ordinary endometritis who had from 3 to 30 hystero-epileptic seizures. Her surroundings were changed, and the uterus was curetted, and the patient completely cured. This he would not attribute to the operation, but to the change of surroundings.

Dr. J. RIDDLE GOFFE said that the specialists who taught that disease of any particular organ of the body is the cause of disease of the brain were taking a position hardly warranted by our present knowledge. If, however, by cure of the disease in a particular organ, the general health were improved, then to that extent the mental condition might be improved.

The Chairman, Dr. PRYOR, said that he believed hundreds of women from the lower walks of life were sent to the public insane asylums who were suffering from chronic endometritis and mild sepsis, who could be relieved by operative procedure. He thought it much more harmful to subject these neurasthenic and mentally disturbed persons to local uterine treatment for many months than to subject them to a slight operation.

Dr. WYLIE, in closing the discussion, said that he had never said that disease of the uterus directly produced mental disease, but that the two conditions were associated. The case in which he had performed hysterectomy was one in which there were many fibroids.

MEETING OF THE ASSOCIATION OF AMERICAN PHYSICIANS

Held at Washington April 30, and May 1 and 2, 1896

FIRST DAY—MORNING SESSION

The association was called to order at 11 a.m. by the President, Dr. ABRAHAM JACOBI.

Address.—The President delivered his address, in which he reviewed the history of medicine, and related the causes that led to its specialization. In the present age of careful and minute study there was no organ in the body, however small, which had not been appropriated by a specialist, and the opportunities of advancement offered by specialties were so much greater than those afforded by general medicine that it took the unobtrusive medical practitioner as many years to make fame for himself in his profession as it took the young specialist months.

He gave briefly the history of the differentiation of drugs and instruments, citing the invention of the hypodermic syringe, and the isolation of alkaloids, and touched upon the growth of bacteriology and serum-therapy. Most of these advances had been due to the study of biology, and he was justified, he thought, in believing that internal medicine would soon begin to reap the fruits of the study of biology, as external medicine had already done. To secure this end, however, the efforts of the antivivisectionists would have to be met and combated to prevent the enactment of legislation, which would be inimical to further studies in this field.

The association had lost two members by death within the past year, and the President paid a high tribute to their memories.

Pasteur Memorial.—Surgeon-Gen. GEORGE M. STERNBERG, U. S. A., called attention to the existence of a committee in this country appointed to act in conjunction with the Paris committee on the erection of a Pasteur memorial. He moved that the secretary be instructed to receive contributions for this memorial, which was agreed to.

Vivisection.—Dr. SAMUEL C. BUSEY, of Washington, D. C., called the attention of the Association to the necessity of taking some steps to counteract the influence being exerted to obtain legislation by Congress prohibiting vivisection in the District of Columbia. Late last fall, he said, the societies connected with the Association of American Physicians and Surgeons had appointed a committee to deal with this question of vivisection, of which committee he had the honor of being a member. There was now pending in Congress a bill which if enacted into law would prohibit vivisection in the District of Columbia, and such an act would be

used as a lever to obtain similar legislation in the legislatures throughout the country. The Surgeon-general of the army, the Supervising Surgeon-general of the Marine Hospital Service, and Dr. SALMON, of the Bureau of Animal Industry in the Department of Agriculture (in each of these departments there being biological laboratories), were co-operating with him to prevent the passage of this prohibitive law. It was difficult for those in Washington to do anything, because they had no representation in Congress and because of the lack of interest in the medical profession throughout the country, and their object in bringing the matter up before this association was to enlist the interest and co-operation of members throughout the country in order that the profession in Washington might have their assistance in preventing the passage of this law.

At a recent meeting of the Senate committee there were read a very large number of letters from prominent physicians throughout the United States in favor of antivivisection legislation, and there were only two from members of the profession against it, one being from Dr. BOWDITCH, of Boston. There was one protest sent by the Johns Hopkins Hospital, and another from the State Medical Association of New Jersey. At a recent meeting of the Medical Association of the District of Columbia they drafted a memorial to the American Medical Association, which meets in a few days at Atlanta, appealing to that body to take some action toward arousing professional sentiment throughout the country. He said that the Humane Society had letters from an amazingly large number of physicians; some of them very distinguished, approving of absolute prohibition. There were also innumerable letters from lawyers, judges, ministers, bishops, college professors, and educated people throughout the country favoring prohibition. Altogether it was a most dangerous document.

Dr. BUSEY moved that a committee of five members (not residents of the District of Columbia) be appointed to memorialize Congress in behalf of those favoring vivisection, and to ask permission to go before the committees on the District of Columbia and give their views.

Röntgen Rays in Medicine.—Dr. F. H. WILLIAMS, of Boston, read a paper upon "The Use of Röntgen Rays in Medicine." He had been studying the subject at the Massachusetts Institute of Technology. His investigations had been conducted with a view to its use in diagnosing internal diseases. He had examined his assistant in a dark room by means of the fluoroscope, and was enabled to see not only the ribs, but also the upper border of the liver. He stated that the rays penetrated the thorax of a young boy much more clearly than they did that of an adult. The rays also penetrated the skull of an adult, though its power in this respect differed at various points, the soft tissues of the face appearing much clearer than the outline of the skull. The lower jaw and teeth could be readily seen, especially when the mouth was open. The subject was also given a strip of brass and told to hold it in front of the chest, and this could be readily seen and its changes of position noted.

In his practical application of these rays, his first case was that of a man with enlarged heart, the outline of which could be seen, and corresponded with the boundary lines marked on the skin at the physical examination. Its pulsations could also be clearly noted. This was seen through the man's vest and two shirts, and he believed it could also have been seen through the coat.

The outline of the spleen could also be seen. Another case examined was a man recovering from pneumonia. A clear area was found at the apex of the right lung, with a darker area in the lower consolidated lobe, about two inches above the upper border of the liver, corresponding with the condition found on physical examination. The next case was one of tuberculosis of the right lung, the examination being made from behind. There was a decided difference in the amount of rays passing through the two halves of the chest, the diseased side appearing much darker than the normal lung. The next case was one of incipient tuberculosis of the lung, developing about six weeks previous to the examination. The fluoroscope showed a dark area in the right upper half of the chest, while the rays passed well through the left apex. Another patient was brought to the City Hospital with a bullet in the arm. It was located by means of the X-rays, and the surgeon removed it from the point indicated. When the fluoroscope was applied to the front of the neck he could see the anterior line of part of the cervical vertebræ, the hyoid bone, the upper part of the trachea and the rings of the trachea. It was interesting to know that a light area appeared behind the trachea corresponding to the esophagus in which he thought a foreign object could have been seen. In conclusion he said that he believed the use of the X-rays would be of practical value in the diagnosis of lung diseases, and he predicted that the fluoroscope would soon find a useful and permanent place in practical medicine.

Dr. WILLIAMS exhibited the fluoroscope which he had designed for this work. It was a cone of thick cardboard about 12 in. long, the eyepiece being about 1 in. in diameter and the distal end about 3 in. The larger end was closed with a diaphragm of paper coated with tungstate of calcium, while a hood of black velvet at each end excluded all light.

Surgeon-general STERNBERG thought it was evident that the X-rays were going to be very useful in diagnosis. But some people, not satisfied with this, were going further and asserting that they were going to be applied in therapeutics as well, and that they would destroy bacteria *in situ*. As bearing on this point he presented a letter which he had just received from a member of the medical staff of the army stationed at Fort Leavenworth, detailing some interesting experiments which he had just witnessed in this line. He had been invited to be present at these experiments and to furnish cultures for the experiment. He accordingly took the bacteria of cholera, typhoid, anthrax, diphtheria, and pus, and exposed them for 10 minutes to the Röntgen rays, which were obtained from Crookes tubes, a Tesla coil, and the street current. After this exposure the tubes were returned to the laboratory, and after 48 hours were examined, when abundant growths were found in every case. There could be no doubt about the genuineness of the light to which they were subjected, and thus it was proved that in this case an exposure of 10 minutes failed to destroy these germs. But even supposing that the bacteria in test-tubes were killed by this means, it was hardly to be supposed that in the human being they could have been so acted upon without injury to the living tissues.

Dr. WILLIAMS stated that in the experiments which he had been conducting in that direction he had showed that the bacteria which had been exposed to the X-rays grew just as well as those which had not been. In his work he used a constant current of 110 volts or an alternating current, but more recently he had employed a Holtz machine with good

results. In reply to a question as to the effect of the rays upon the hair he stated that he had had his head in the rays for some time past, and he could not see that he had any less hair than formerly.

Dr. WILLIAMS also exhibited some photographs which he had taken of the human head and arm.

Leucomaine-poisoning.—Dr. B. K. RACHFORD, Cincinnati, O., read a paper on this subject, in which he said that in a paper read before this association last year he had made the assertion that leucomaine-poisoning was a most important form of auto-intoxication, which might manifest itself in *at least* three distinct but closely allied clinical forms, viz.: (a) A true migraine, or leucomaine headache. (b) A migrainous epilepsy, or leucomaine epilepsy. (c) A migrainous gastric neurosis, or leucomaine gastric neurosis.

His studies during the past year had not only convinced him of the truth of these assertions, but they had also strengthened the belief which he had at that time that leucomaine-poisoning was largely responsible for the yet larger group of nervous symptoms so commonly associated with chronic alcoholism, chronic lead-poisoning, and with other phases of the so-called gouty or uric-acid diathesis.

Another manifestation of leucomaine-poisoning was leucomaine asthma. He gave the history of several of these cases, in which, after the paroxysm, copious flows of urine had occurred in which there were large quantities of paraxanthin. In chronic alcoholism and chronic lead-poisoning he believed that the nervous symptoms were due to leucomaine-poisoning. In lead encephalopathy the epileptiform convulsions were due to paraxanthin. In other cases of lead-poisoning in which there were no convulsions careful examinations failed to show any xanthin or paraxanthin. Where paraxanthin was found in the urine, injections of the final fluid into mice or rats were followed by death from convulsions in a few minutes, but where no paraxanthin was found injections of the final fluid was not followed by convulsions. The remarkable similarity between the nervous manifestations of gout and lead-poisoning made him think that leucomaine-poisoning might be the cause of the nervous symptoms in both cases. He related a fatal case of uremia in which an examination of the blood withdrawn by venesection before death showed large quantities of paraxanthin.

Dr. VICTOR C. VAUGHAN said the paper was exceedingly interesting and valuable. He wished to know what methods of identification of the xanthin bodies Dr. RACHFORD employed, and also whether leucocytosis existed in any of his cases of leucomaine headaches.

Dr. WM. OSLER thought the Association was to be congratulated that one of its members was turning his attention to this important subject—a subject which was being brought out in Vienna. He wished to know whether Dr. RACHFORD had studied the presence of Neusser's granules in this matter. He himself had intended to do so, but the material on hand was not sufficient. NEUSSER had stated that by a slight modification of Ehrlich's method there could be seen certain dark granular bodies which he regarded as pathognomonic of the uric-acid diathesis. It was remarkable in what large numbers these darker granules were present in some acute instances.

Dr. J. M. DA COSTA, of Philadelphia, said that if these investigations were followed out they might furnish an explanation of why some cases of chronic lead-poisoning and gout lead to contracted kidney while others do not.

Dr. RACHFORD, in conclusion, said that he depended upon the physiological test, but also employed the chemical test in determining the presence of xanthin and paraxanthin in fluids, the test used being that in BOUD's little book. He did not depend upon this, however, but relied upon the physiological test of injecting paraxanthin into mice and rats. This resulted in stupor, followed by slight muscular twitchings, soon passing into tonic or tetanic convulsions with marked dyspnea. In the cases of leucomaine headache he did not find any leucocytosis.

In reply to Dr. OSLER he stated that he had not examined these cases for Neusser's granules.

He had examined these patients from time to time in the intermediate stages of the disease, and always failed to find paraxanthin present until the symptoms of leucomaine-poisoning began to manifest themselves: headaches, gastric neuroses, asthma, etc. In cases of arterio-sclerosis with gouty attacks he found the patients excreting the xanthin bodies in excess during the gouty attacks, while they remained free between the attacks. In leucomaine epilepsy the xanthin appears shortly before an attack and remains present until the culmination of the attack. In this it differed from ordinary epilepsy, for in the latter form he had failed to find the xanthin bodies after repeated attempts; moreover, leucomaine epilepsy came on in middle life, and thus belonged to a separate type.

A Toxicogenetic Germ Found in Ice-cream, and Its Chemical Products, by VICTOR C. VAUGHAN and GEO. D. PERKINS, of Ann Arbor, Mich., was the title of the next paper read. In August, 1895, the authors were furnished with some ice-cream which had poisoned a number of people at a social gathering. The symptoms were quite different in some respects from those observed in other cases of a similar kind. They succeeded in isolating from this cream a bacillus which differed in many respects from the tyrotoxicon bacillus previously found. The paper gave some accounts of studies made with this bacillus, and attempts to isolate the chemical poison. In many cases its introduction into the stomach was without result, while its intra-abdominal injection resulted in death. They had not yet succeeded in separating the chemical poison, but they had accomplished enough to know that this poison was not identical with any which had yet been obtained from milk, or any of its products. The experiments showed some points of similarity and some of dissimilarity between this bacillus and the colon bacillus.

A Statistical and Experimental Study of Terminal Infections.—Dr. S. FLEXNER, of Baltimore, read a paper with this title. In this paper the author gave the results of systematic bacteriological examinations at human autopsies in cases of chronic disease. He brought forward evidence tending to show that in a large proportion of such cases there was a bacterial infection just before death, and that besides the local infections inflammatory processes, not uncommonly met with in the serous membranes, upon the endocardium and in the meninges, there were also examples of cryptogenetic infection in some cases, while evidences of actual septicemias were not infrequent. He exhibited charts showing the number of cases of chronic Bright's disease and chronic heart lesions in which streptococci, staphylococci, micrococci lanceolati, gonococci, and other varieties were found. In chronic Bright's disease local foci of these micro-organisms were found in acute peritonitis, acute pleuritis, acute pericarditis and endocarditis, and in acute meningitis. His object in presenting the paper was to impress upon

the members the importance of the role played by pre-existing chronic diseases in the development of acute infectious diseases, and that in many cases the subjects of chronic diseases died from unrecognized bacterial infection. It might sound paradoxical, but it was nevertheless true, that people rarely died from the diseases from which they were suffering. The experimental part of the paper dealt with the bactericidal powers exhibited by the blood-serum of healthy persons as compared with that from persons who had suffered from some of the chronic diseases mentioned. Experiments were also made in the same direction with placental blood. He found that normal blood-serum possessed a decidedly bactericidal effect, while in two out of eleven cases experimented on with the blood-serum of patients suffering from chronic diseases there was absolutely no effect on the staphylococcus aureus, while of the remainder only four possessed any decided influence. He also showed that the blood of non-immunized animals possessed no bactericidal effects, while the blood of immune animals did. It was now known that the presence of antitoxic substances in the blood was not limited to those animals which had been immunized against certain bacteria or to individuals who had successfully passed through an attack of the disease, but that normal blood also possessed antitoxic properties to some extent.

Dr. STERNBERG said he was particularly struck with the statement that blood which had passed through the placenta did not possess the bactericidal properties of the blood in the general circulation of the mother. This seemed to strengthen the views which he had entertained that antitoxins when they were once in the circulation might perhaps be retained indefinitely, for they did not even escape into the fetal blood through the placenta. Nor did they escape with the urine, so that one of the questions now occupying the attention of investigators was, How long were the powers of these antitoxins retained? The duration of immunity varied considerably, diphtheria and cholera immunity being of very brief duration; but it was not improbable that if antitoxins were developed during an attack they might remain in the circulation for a considerable period of time simply because they did not dialyze, and there was no way for them to escape.

Dr. VAUGHAN said that the experiments made by Dr. FLEXNER were probably the forerunners of questions which would soon come up more fully, and they were constantly being met with in an experimental way. He had inoculated rabbits with an organism sufficiently attenuated not to cause death, and had produced a fitful fever which lasted two weeks. After fifty days, and less in some instances, he had killed the rabbits and been able to cultivate the organisms, and this was so constant that in every case bacteria were present.

Dr. B. M. BOLTON, of Philadelphia, said that if antitoxic properties did not pass through the placenta, how was the fact to be explained that mothers had transferred this property to their offspring. He related EHRLICH's experiment with tetanus, where it was proved that the progeny of immunized animals undoubtedly obtained a certain amount of antitoxin.

Dr. STERNBERG replied that antitoxic properties might escape through the milk, and the young animals in EHRLICH's experiment were rendered immune in this way, and not simply because they were the offspring of immunized animals.

Dr. BOLTON stated that EHRLICH's experiments were effected by an exchange of offspring. The off-

spring of a normal animal were given to an immunized animal, and derived a good deal of antitoxin through her milk; but the offspring of the immunized mother were given to a normal animal and yet retained their immunity.

Dr. FLEXNER said that his study of placental blood was merely incidental, and he was surprised at the result of it. As to the lack of bactericidal properties in the blood-serum of patients with chronic disease he only referred to staphylococcus aureus.

Dr. THEOBALD SMITH, of Boston, said that duration of vitality of certain bacteria was a most interesting phenomenon. He remembered a case in which he found the typhoid bacillus 125 days after inoculation. He afterward inoculated the animal with hog cholera, and even after that the typhoid bacillus was found.

Acute Alcoholism.—The next paper was by Dr. A. C. ABBOTT, of Philadelphia, and was entitled "The Effect of Acute Alcoholism on the Normal Resistance of Rabbits to Various Forms of Infection." In this paper Dr. ABBOTT showed that under the daily administration of ethyl alcohol to the stage of intoxication the normal vital resistance of the rabbit to particular forms of infection and intoxication was much diminished, while to other forms of infection and intoxication it was but little, if at all, affected. The lessened resistance to infection was most marked in inoculations of cultures of streptococcus pyogenes (erysipelatus). This observation confirmed the results observed clinically with alcoholic patients suffering from phlegmonous and erysipelatus inflammations.

Streptococci Characteristics and Varieties.—Dr. H. C. ERNST, of Boston, read a paper upon "The Identity of the Streptococci, and a Description of at Least One New Variety." He contended that all streptococci were not the same, varying only in intensity of virulence or in some minor characteristics, but asserted that he had succeeded in cultivating a species possessing markedly different characteristics. He called this the "streptococcus aureus liquefacillus," and thought there was still another variety. The *S. aureus liquefacillus* was obtained from a fatal case of puerperal septicemia, and the curettings from the uterus on several occasions showed streptococci. From the apparent date of infection until death the case lasted 12 days. There was an erysipelatus blush over the nates, and the cervical canal contained several hemorrhagic spots of infection. He had given the name of *S. aureus liquefacillus* to the germ provisionally. They formed chains which became shorter and shorter under cultivation, liquefied gelatin, and showed a golden yellow or lemon-yellow color on the culture medium.

No spore formation had been observed. The cultures retained their vitality three months. The streptococci stain with aniline colors. In experiments made on rabbits with these cultures the animals died in 15 to 20 minutes after an injection of $\frac{1}{16}$ c.c. These results were very remarkable. Examination of the animals after death showed no suppuration, but small amounts of serum in the peritoneal cavity. Large numbers of the microorganisms were also found in the peritoneal cavity. He described the methods of growth on various culture media.

Dr. STERNBERG expressed the opinion that this was the streptococcus pyogenes from the fact that it liquefied gelatin and produced a yellow pigment. He believed it was not distinct from the ordinary streptococcus. Of course, the fact that it formed chains, which in the course of cultivation became shorter, was the reverse of that usually observed in

streptococci. He did not believe that later observations had borne out the assertion of streptococci being divided into two varieties.

Dr. BOLTON said that this seemed to be a new variety of the streptococcus. CRUIKSHANK had found that staphylococci so often took on a chain formation that he described a class resembling streptococci in appearance.

Dr. ERNST, in closing the discussion, stated that he had said in his paper that the immunity obtained from one streptococcus was active against any other variety. It was perfectly true that the appearances of the two varieties were identical, but if there was a variety of streptococci which possessed such extreme virulence as was exhibited in his case, it must be something different. As to CRUIKSHANK's statement that staphylococci might take on the chain formation of streptococci he had only to say that he had worked with all varieties of staphylococci and had never seen them take on a chain formation. The cultures of both forms of streptococci were almost exactly alike.

FIRST DAY—AFTERNOON SESSION

Conditions Influencing the Appearance of Toxin in Cultures of the Bacillus of Diphtheria.—Dr. THEOBALD SMITH, of Boston, read the paper. This paper treated of the conditions which hasten or retard the formation of toxins in cultures, and of the latter class he found that the muscle-sugar in bouillon played an important rôle. He found a difference in the amount of muscle-sugar in the beef of different localities, so that the strength of the toxins obtained varied correspondingly. For example, the beef which he had obtained from the vicinity of Washington contained a much larger amount of muscle-sugar than that obtained near Boston. This would account for the differences obtained in different sections in the production of toxins and antitoxins. The conclusion drawn from the paper was that there should be a standard bouillon, containing a standard amount of sugar, before uniformity of results in the production of antitoxins could be hoped for.

Dr. ERNST asked how the author obtained the partial putrefaction of the beef which he advised, and how the beef was prepared. Was it by fine chopping?

Dr. BOLTON said that the Association was much indebted to Dr. SMITH for pointing out the fact that the production of toxins depended upon the presence or absence of muscle-sugar in the bouillon. In his work in producing toxins he used beef, and chopped it up very fine, and then allowed it to stand for a day or two until it became somewhat offensive, and with this made a bouillon from which he was able to secure toxins of good strength.

Antitoxin in Non-immunized Horses.—Dr. B. M. BOLTON, of Philadelphia, read a paper on this subject. He said that in his experiments in producing antitoxin at the Philadelphia city farm, he had observed that with some horses it was a matter of very little difficulty to obtain antitoxin in a short time, while in others it was almost impossible, and in some cases there was such a strong reaction from even the smallest dose of toxin that the inoculations had to be discontinued. This suggested a difference in the antitoxic power of normal blood, showing that in some cases normal antitoxin was present, while it was absent in others. Twelve horses were tested, and three were found to produce a normal antitoxin, and in all three cases the strength seemed to be the same; 13 c.c. of this blood-serum was capable of counteracting the disease in guinea-pigs, while injections of normal blood-

serum from horses not possessing antitoxic powers had no effect in neutralizing the doses of toxin. In horses possessing normal antitoxic properties the inoculations of toxin produced a less marked reaction than in horses which did not possess it. The existence or absence of normal antitoxin, however, had no effect on the production of antitoxin artificially. Dr. BOLTON also stated that observers had found antitoxin in the blood of children who had not had diphtheria.

Dr. FLEXNER said that experiments in the same lines showed that normal goats gave a serum which was protective against cholera.

Dr. THEOBALD SMITH indorsed Dr. BOLTON's observation, and said that the amount of toxin injected bore no relation to the amount of antitoxin produced.

The President asked whether the ages of the horses had anything to do with the differences of results obtained. He had lately seen a statement that the horses had to be newly born in order to get the best results. Eighty or 82 per cent. of new-born horses had normal germicidal properties in the blood.

Dr. BOLTON replied that the ages of most of the horses furnished him were such that they could not be told, but others were young horses.

Diphtheria Antitoxin Obtained by Electrolisis.

—The paper with this title was by Drs. B. M. BOLTON and H. D. PEASE, of Philadelphia. This paper corroborates the observation that the prolonged action of a weak electrical current upon diphtheria toxin produces a certain amount of antitoxin. The current was allowed to pass through bouillon cultures for 20 hours, though a few tests were also made at longer and shorter intervals. These tests were made according to Behring's method. They showed that there was a production of antitoxin over the positive pole, but none over the negative pole. Five c.c. of fluid from the negative pole injected into guinea-pigs had no result, but an injection of 2 c.c. from the positive pole neutralized 10 times the fatal dose of toxins.

Dr. STERNBERG asked whether it would be practicable to produce antitoxin in this manner instead of by inoculating horses, and Dr. THEOBALD SMITH asked whether an overdose of this antitoxin would have any especially bad results.

Dr. BOLTON replied that of course he could not say positively whether attempts to produce antitoxin in this way would prove practical or not. The production of antitoxin by this method was due to a rearrangement of the molecules and not to any chemical action. In reply to Dr. SMITH's question he stated that he had never seen any bad results follow large doses of the electrically prepared antitoxin.

Significance of Pathogenic Spirilla in American Surface Waters, by Dr. A. C. ABBOTT, of Philadelphia, was the next paper read. Dr. ABBOTT said that an important obstacle in the settlement of the controversy concerning the relation between the *Spirillum cholerae Asiaticæ* of KOCH and the many varieties of similar spirilla that have been discovered in the surface waters of western Europe, since the late epidemic of cholera in Hamburg, is the fact, as pointed out by DUNBAR, that many of these vibrios have been discovered in waters of localities in which cholera had been present or of those in which cholera subsequently made its appearance. It is of manifest importance that surface waters of localities that have not been visited by cholera at either a near or comparatively remote period should be subjected to careful investigation from this

standpoint, in order to determine if similar vibrios are present in them also.

With this in view the more polluted end of the Schuylkill river had been subjected to such study, with the result that a spirillum had been detected that possessed all the morphological, cultural, and pathogenic group characteristics of the suspicious spirilla discovered in European surface waters.

That this organism can have nothing to do with cholera is evident, as the last visitation of cholera to this city was in 1873, when there were eight cases reported, six of which were of doubtful nature.

In the event of an outbreak of Asiatic cholera in this country it is essential for us to be familiar with the characteristics of spirilla present in polluted surface waters, at times when the disease is absent, and it is for the purpose of obtaining such data that he made this contribution, hoping to induce other American bacteriologists to give special attention to our surface waters from this standpoint.

He had named this micro-organism the "*Vibrio Schuylkilliensis*," but he did not think it formed a new class, but was only a variety. There was certainly a strong family likeness between this vibrio and the cholera spirillum, but one produced cholera, while the other did not.

Dr. VAUGHAN said he did not think that pathogenic spirilla could be very widely distributed through the United States. He had examined about 400 specimens of water from all sections of the country, and, while it was true that he was not looking for spirilla particularly, he had never found any.

Dr. THEOBALD SMITH said that quite a number of years ago he had described a pathogenic spirillum which he had isolated from a lung sent to him from West Virginia.

Dr. ABBOTT said his object in reading the paper was to get such statements as Dr. VAUGHAN had made. He asked Dr. VAUGHAN what methods of examination he had used; whether he had used Koch's method? One of the students in the laboratory at Philadelphia had been working on the Schuylkill water for 18 months without finding any spirilla, because he had not used Koch's method. As soon as this was used the vibrio was found in every case. He had not used Pfeiffer's specific test. He had written for it, but had not yet received it.

Nucleinic Acid in Anthrax.—Dr. VAUGHAN read the next paper, on "The Treatment of Anthrax in Rabbits by Intravenous Injections of Nucleinic Acid," by VICTOR C. VAUGHAN, CHAS. T. MCINTOSH, and GEO. D. PERKINS, of Ann Arbor, Mich. In these experiments the nucleinic acid was injected into the jugular vein of rabbits inoculated with anthrax, 10-per-cent. solutions of the acid being generally used. The nucleinic acid was prepared from pure yeast, and was comparatively free from germs. It was necessary that it should be pure, for if foreign bodies were present it would be destroyed. In all these experiments no evidence had been obtained that the blood was coagulated. Animals were inoculated with anthrax, and then with a 10-per-cent. solution of nucleinic acid, and of these 80 per cent. survived the anthrax. When weaker solutions of the acid were used 60 per cent. survived; while of the controls inoculated with anthrax, but not treated with nucleinic acid, only 20 per cent. survived. Treatment was begun from five to twenty-four hours after the anthrax inoculations. The age of the animals seemed to have some effect on the success of the treatment, but the most important factor seemed to be the strength of the nucleinic acid. The largest

amount given was 18 c.c. of the 10-per-cent. solution, equivalent to 1.8 gme. of nucleinic acid. He did not draw any conclusions, but summarized by saying that the results depended upon the virulence of the germ, the age of the animal, the strength of the nucleinic acid solution, and the period after inoculation when the treatment was begun. Very small doses of anthrax were used in these experiments.

DR. THEOBALD SMITH asked how long the control animals lived after inoculation with anthrax.

DR. BOLTON inquired if when such small doses of anthrax were taken, it were not possible that some of the animals had not received any anthrax germs at all.

DR. MELTZER asked whether the nucleinic acid was in alkaline solution.

DR. VAUGHAN said that the injections were made from 5 to 24 hours after inoculation, the longest being 28 hours. In reply to Dr. SMITH he said some of the controls were still alive. As to Dr. BOLTON's question it was certain that some of the rabbits did not get much anthrax. The nucleinic acid was always given in a saline solution—dissolved in liquor ammonia or soda bicarbonate.

(End of the first day.)

BOOK REVIEWS

The Toxic Amblyopias; Their Classification, History, Symptoms, Pathology, and Treatment.—By G. E. DE SCHWEINITZ, A.M., M.D., Professor of Ophthalmology in the Philadelphia Polyclinic; Clinical Professor of Ophthalmology in the Jefferson Medical College, etc. With forty-six illustrations and nine plates; pp. viii+238. Phila.: Lea Brothers & Co.; 1896.

This volume is the essay to which was awarded the Alvarenga prize of the College of Physicians of Philadelphia, Oct., 1894. It is always a pleasure to read anything by this painstaking, conscientious clinical observer. The book is divided into ten sections, an addendum, and index. The publishers have produced the work in a very satisfactory manner, the paper being unusually good and the type large and distinct; the plates are all clearly printed, and, what is novel in medical-book publishing, the cover is a cream-colored linen with gilt lettering, making an artistic effect.

The first section treats of "Amblyopia from Alcohol and the Abuse of Distilled and Malt Liquors." The author, in order to determine the influence of alcohol alone on the optic nerve, poisoned for a long time, with alcohol, animals, monkeys, etc., and concludes by saying: "I have performed many experiments on animals with alcohol, but have never been able to discover the least ophthalmoscopic or microscopic change in the optic nerves."

"Amblyopia from the Abuse of Tobacco" is next treated of at length, and then the "Alcohol-Tobacco Amblyopia," or the mixed variety, and he says "this is the form usually encountered, pure alcohol-amblyopia, as we know, being exceedingly rare, and pure tobacco amblyopia not common."

"Tobacco Amblyopia among the Lower Animals" is spoken of and cases cited, although the author was unable to produce chronic tobacco-toxemia in his experiments.

Section III treats of "Amblyopia from Bisulphide of Carbon, Iodoform, Nitro-benzol, the Coal-tar Products, Arsenic, and Lead," is exceedingly interesting and full of detail, and shows great research and labor.

Section IV, "The Anesthetics, Opium, Chloral, Bromide of Potassium, and Cannabis Indica."

Section VI discusses "Quinine Amblyopia, including Disturbances of Vision under the Influence of other Salts and Preparations of the Cinchona Bark." Experiments made upon a dog, by administering large doses of quinine, caused complete blindness, and on the killing of the dog the optic nerve was found to be atrophic, and the pathological changes seem to be "very likely that the original effect of quinine is upon the vaso-motor centers, producing constriction of the vessels; that finally changes in the vessels themselves are set up, owing to an endo-vasculitis; that thrombosis may occur, and that the result of all these is an extensive atrophy of the visual tract."

Section X, and last, treats of "The Ptomaines, Toxalbumins, cases of Meat, Fish, and Sausage Poisoning, and Serpent Virus."

The volume is one of great value to all students of ophthalmology, as it is scientific, complete, and as near perfect as is possible. We wish it a wide circulation, and express the hope that future medical works may take on as attractive a dress as this one.

The Treatment and Education of Mentally Feeble Children.—By FLETCHER BEACH, M.B., F.R.C.P., Phys. to the West End Hosp. for Nervous Diseases, etc. Pp. 32. London: J. & A. CHURCHILL; 1895.

This little book is a summary of the author's experience in the treatment of cases of mental deficiency. The most important points emphasized are the uselessness of craniectomy in congenital feeble-mindedness, the necessity of the physician's being on the lookout for cretinoid conditions, and the superiority of institution training to home teaching of undeveloped brains. The brevity of the brochure prevents its giving anything more than an outline of an important subject.

Stories of a Country Doctor.—By WILLIS P. KING, M.D., first vice-president of American Medical Association, etc.—No. 1 of Doctor's Story Series.—Pp. 400, with illustrations. New York: Bailey & Fairchild Co.; 1896. Price, paper, 50 cents.

For interesting stories, diverting tales, amusing adventures, and pathetic incidents, we cheerfully recommend the volume above mentioned. It is full of genuine wit, kindly humor, and homely though profound philosophy. That Dr. KING believes the "proper study of mankind is man" is clearly shown, for we find descriptions of character evincing a penetrating knowledge of human nature and its many peculiar failings. After reading the book one cannot help thinking of its author as a thoughtful, true physician, loyal to his profession, and overflowing with the milk of human kindness. We find throughout a spirit breathing of the nobility of the profession and its high ideals—hatred of deceit, intolerance of wrong, contempt for the quack, scorn for the pretender, compassion for the weak, and kindly pity for the unfortunate.

The scene of most of the tales is laid in the West, where the air seems to breed nobility, independence, and strength of character. The author's style partakes of these qualities, for it is energetic, rugged, and strong. There are twenty chapters in the volume, every one of which contains amusing incidents, instructive facts, and philosophic truths. Many of the author's statements are worthy of serious thought; in fact, while reading, we wished the Doc-

tor would have lengthened his "lectures," for many of them recalled past experiences, pleasant and unpleasant, and all of them "struck home." One can gain an idea of the scope of the book from the following, which are the captions of some of the chapters: "Peculiarities of Pioneer People"; "Superstitions, Traditions, and Foolish Ideas," a most interesting chapter; "Preacher Doctors, Midwives, and Nurses"; "The Ups and Downs in Early Practice"; "Deathbed Repentance and Confessions"; "Sham Suicides"; "Liars and their Lies"; "Consultations and the Code"; "People Who Annoy Doctors"; "Going Back to College"; and—what we wish every layman, professional man, and quack would read and take to heart—"Quacks and Quackery."

We have not only enjoyed reading these stories, but feel better for the reading. Adverse criticism is called forth only by the few grammatical errors which appear in the book.

The International Medical Annual and Practitioner's Index for 1896.—Edited by 37 department editors. Pp. 728; illustrated. New York: E. B. Treat. Price, \$2.75.

We again welcome the yearly issue of the above valuable one-volume handbook of reference, which has so justly attained its fourteenth edition. It is a reliable book to which the busy practitioner can turn for the most recent information upon every subject connected with his profession. Colored plates and photographic reproductions have been introduced very extensively to elucidate the text and add value to the book.

The "Annual" is divided into four parts:

Part I.—Therapeutics, The Dictionary of New Remedies, and Review of Therapeutic Progress for 1895.

Part II.—Special articles by eminent authorities: How to Observe the Parasite of Malaria; Diagnosis of Toothache and Neuralgia of Dental Origin; The Remedial Value of Cycling; Sensory Distribution of Spinal Nerve-roots, including a good-sized colored plate; Angio-Neurosis, illustrated; Life Assurance; and an illustrated article on Röntgen's Method of Shadow Photography.

Part III.—A Dictionary of New Treatment in Medicine and Surgery, comprising the major portion of the book; being a retrospect of the year's progress in medicine and surgery, treating the various diseases in alphabetical order. Among some of the important articles are the following: Diseases of the Bladder; Diabetes; Disorders of Digestion; Diphtheria, with its treatment by antitoxin, giving statistics and clinical observations in detail; Treatment of Diseases of the Ear, with illustrations, and a detailed account and classification of the various affections thereof; Indian Remittent Fevers; Diseases of the Heart; Obstinate Hiccough; Nervous Disorders of Women; Orthopedics, with plates and diagrams illustrating cases; Diseases of the Stomach; Surgery of the Stomach; Pulmonary Tuberculosis; and Diseases of the Prostate. This part of the book covers some 500 pages of nicely printed matter in a most convenient and concise style for hasty reference.

Part IV.—Comprises miscellaneous articles, among which are articles on Recent Advances in Sanitary Science, and New Inventions, with illustrations of the latest instruments and appliances.

The volume concludes with a full general index, thus making one of the handiest and best yearly résumés of medical and surgical progress ever offered for the money.

EDITOR'S NOTES

The New York Medical College and Hospital for Women held its thirty-third annual commencement on the evening of May 4, at the Berkeley Lyceum. Five young women were graduated. Prizes were awarded to LAURA L. FOULKS, '97, for proficiency in medical jurisprudence; SUE E. HERTZ, '99, for proficiency in hygiene; and ANNA L. LANGWORTHY, '98, for physiology. Dr. HENRY F. WILCOX delivered the faculty address, and the diplomas were handed to the graduates by Mrs. MARY KNOX ROBINSON, president of the Board of Trustees.

Austin Flint Medical Association of Iowa.—The next meeting of this society will be held at Clear Lake, July 14 and 15. The new officers of the association are: President, Dr. G. C. STOCKMAN, Mason City; vice-president, Dr. E. C. MILLER, of Rockwell; secretary and treasurer, Dr. W. A. ROLF.

Ancient Trusses.—An old Phœnician idol, which has recently been exhumed, and which is estimated to be at least 3000 years old, is represented with various ruptures and a double truss of a pattern not unlike the modern.

Women at University of Glasgow.—The recent examinations held at the University of Glasgow for degrees in medicine and surgery were participated in by women candidates, several of whom reached the maximum requirements, while the majority acquitted themselves with marked credit.

Mariano Semmola was one of Italy's medical celebrities. He was born January 31, 1831, the son of a distinguished physician, GIOVANNI SEMMOLA. He succeeded his father as physician to the Ospedale degli Incurabili, and for many years occupied the chair of experimental pathology and therapy in the University of Naples. Like many other distinguished medical men of his country,—PALLASCIANO, MOLESCHOTT, MANTEGAZZA, etc.—he was also a member of the national Senate. SEMMOLA was an imposing personage, kindly and amiably disposed, a distinguished speaker, and a highly inspiring teacher. Of his numerous works and treatises, which appeared partly in the Italian, partly in the French, language, may be mentioned his "Experimental Methods in Materia Medica" (1865), "Empirical and Scientific Therapy" (1869), "Ancient and Modern Medicine" (1876 and 1886), as well as his Lectures upon Experimental Pharmacology and Clinical Therapy (1886), and valuable papers upon albuminuria, diabetes, etc. He was an active contributor to the BULLETIN.

New York University Medical College Commencement.—The fifty-ninth annual commencement of the Medical Department of the New York University was held in the Music Hall on the evening of May 5. There were 71 graduates. The valedictory address was delivered by Dr. WILLIAM A. McLEOD, and the lay orator of the occasion was the Rev. Dr. LINDSAY PARKER, of Brooklyn. The prizes for excellence in general scholarship were awarded to Drs. H. S. PASCAL, H. de W. WATSON, and F. M. MILLER. The Mott medals for anatomico-surgical preparations were given, respectively, the

gold to Dr. G. L. J. MEYLAN, and the silver to Mr. G. R. PISEK, '97. The prize for recording surgical clinics was awarded to Dr. VAN BUREN. The present is the last class to graduate under the three-years curriculum.

New York State Health Statistics.—The fifteenth annual report of the New York State Board of Health, just issued, shows some very interesting statistics. As to the deaths from typhoid fever, reports from the six largest cities of the State show the mortality of this disease to be at the rate of 21.71 per 100,000. In rural towns the deaths were 23. As to diphtheria, the statistics show that the disease was more prevalent in maritime districts than in the interior. Along shore 145 people died of it out of 100,000 population. The number for the whole State was but 9.6. These figures, of course, show the mortality before the use of antitoxin advanced beyond the experimental stage. There were but 3000 deaths from croup in the State during the year, compared with 6000 in 1894 and 8000 in 1893. Tubercular consumption carried off 12,804 victims, and typhoid fever, 1659; croup and diphtheria (classed together), 6616. The total number of deaths in the State was 119,780; of these, 41,639 were children under five years of age. There were 23,115 deaths due to zymotic diseases.

One interesting and significant feature of the report is the table showing the comparative healthfulness of the various sections of the State. In the Adirondacks and other northern regions, the death-rate was but 12; in the Adirondacks proper, very likely it was less than 10. The southern tier shows a death-rate of only 12.41. Along the Hudson watershed the death-rate was 17.50. This figure is second only to the maritime district, where the death-rate was 20.40.

A Letter from Col. Waring.—*To the Editor of the A. M.-S. BULLETIN:* Romeike sends me a clipping from your issue of April 18, in which you say that orders for the separation of ashes and garbage were formulated a year ago, and that citizens have bought separate receptacles and used them, and that they were emptied into the same cart.

The only district in which an attempt has been made to enforce separation has been between Seventeenth street and Fifty-ninth street, east of Sixth avenue. The Board of Health gave an order for separation in the whole district at once. Possibly, some persons used the two receptacles before this Department had notified them that it was necessary. As fast as we could reach them, fighting our case from house to house, often with much opposition, the collection was made separately, and has for some time been made separately in that whole district.

I have no fault to find with your criticisms, but I thought I would give you this single point as one that you might avoid in future. I am sure we have enough other shortcomings to satisfy your desires.

Yours very truly,

GEO. E. WARING, Jr.,
Commissioner.

[The BULLETIN publishes this communication from the distinguished head of the Street Cleaning Department with pleasure, because it proves that with the best intentions in the world errors in statement are possible. The fact is, however, that the BULLETIN is correct in the statement made editorially in

regard to the collection of ashes and of garbage in one and the same cart, notwithstanding the fact that householders in the district referred to have purchased separate receptacles. Occasionally, after a spasmodic fashion, the refuse is collected separately, but careful observation, extending over a period of months, satisfies a representative of the BULLETIN that all that the Commissioner of Street Cleaning has to do is to drive occasionally around the specified district and see for himself that the department foremen are making erroneous reports to him in regard to the separate collection of garbage and of ashes. This has been the rule. We suppose, now that the BULLETIN complaint has reached the ear of the Commissioner, that it will be the exception in the future. Of course the Commissioner understands the single-hearted purpose of the BULLETIN in its fault-finding. It gives due credit where such is deserved, but it must reiterate its belief that the Commissioner is proceeding with too much procrastination, so to speak, in this important matter. This is said in full view of all the difficulties the Commissioner has had to contend against, not the least of which is the fact that a distinguished lawyer has within a week opposed further obstacles to the letting of the contract for proper separation of ashes from garbage.—ED.]

The Common Council of Buffalo, on April 29, refused to appropriate funds for the entertainment for the Public Health Convention in that city, and, as a consequence, many of the members of the Erie County Medical Association became exceedingly provoked.

The convention was invited by the city authorities and, therefore, the members of the Medical Association thought it would be but doing the proper thing to give a suitable expression of their appreciation of the visiting members, and to entertain them.

The Maryland Medical and Chirurgical Faculty held their ninety-eighth annual session, at Baltimore. Pres. CHAS. D. HILL delivered the address, which was followed by speeches by Drs. EDWARD BRUSH, HENRY J. BERKELEY, and LLEWELLYS F. BARKER. Papers were read by Drs. W. H. WELCH, WM. OSLER, J. W. CHAMBERS, HARRY FRIEDENWALD, and WM. LORD. At the second day's session there was a discussion in which a large number of practitioners took part, and at the evening session the reports of committees were read, which were followed by a general election of officers. On Thursday remarks were made by several members, and at the evening session an oration was delivered by Dr. SOLOMON SOLIS-COHEN, of Philadelphia. The sessions continued through Friday, when adjournment took place. Dr. COHEN's speech was on "The Path of Progress in Modern Therapeutics." At the Friday evening session, portraits of Drs. GEO. MILTENBERGER and H. P. C. WILSON were presented to the society, and Dr. SAMUEL C. CHEW and CHAS. G. HILL delivered addresses.

The South Kansas Medical Society met in Wichita on April 28. There was a large number of physicians present, and much interest was taken in the

proceedings. A banquet followed. Among the papers read were the following: "Scarlet Fever," by C. A. MANN, M.D., Cheney, Kan. "Puerperal Fever," by M. W. CAVE, M.D., Wichita, Kan. "Extra-uterine Pregnancy, with reports of cases," by GEO. EMMERSON, M.D., Winfield, Kan. "Gallstones," by C. M. HOLCOMB, M.D., Winfield, Kan.

The Lincoln Medical College of Cotner, Neb., University, has filed its articles of incorporation. The purpose is to reorganize and carry on the medical college at Cotner. The capital stock of the university is \$50,000.

Alabama Medical Association.—The officers elected by the Alabama Medical Association at its meeting in Montgomery on April 24 were: Dr. B. W. Toole, Talladega, president; Dr. J. A. Wilkinson, Flomaton, senior vice-president; Dr. J. C. LeGrand, Anniston, junior vice-president; Dr. C. H. Franklin, Union Springs, and Dr. B. J. Baldwin, Montgomery, censors for five years; Dr. R. L. Hill, Montgomery, orator; Dr. G. C. Chapman, Birmingham, alternate orator. Counsellors elect: Dr. Julius Jones, Coosa County; Dr. James B. Whitfield, Marengo County; Dr. W. G. Harrison, Talladega County; Dr. G. T. McWhorter, Colbert County; Dr. Thomas Robinson, Bibb County; Dr. W. L. DuBose, Shelby County; Dr. F. I. Moody, Henry County; Dr. George B. Waller, Montgomery County.

In Honor of Jenner.—May 14, the centennial of the first vaccination by JENNER, will be appropriately celebrated by the Medical Society of the County of Kings, held at the Pouch Mansion, 345 Clinton avenue, Brooklyn. The following gentlemen will make addresses: The Rt. Rev. H. C. POTTER, D.D., LL.D., Bishop of New York; WILLIAM PEPPER, M.D., LL.D., provost and professor of the theory and practice of medicine and clinical medicine in the University of Pennsylvania; WILLIAM WELCH, M.D., professor of pathology at Johns Hopkins University, Baltimore, Md.; Hon. ST. CLAIR MCKELWAY, Regent of the University of the State of New York.

A Maternity Hospital.—It is proposed to erect a maternity hospital in Sydney. A building fund of \$100,000 has been collected, and the government is asked to grant the required land for the site.

Duped by a Confidence Man.—Several physicians in this city and in neighboring New Jersey towns have been victimized by a plausible swindler, who feigned appointing them as examiners of an insurance company, and then secured a premium from each on a policy taken out in the new company, which, he explained, was a prerequisite to holding the position of examiner. The swindler was taken into custody in this city on May 5, at the request of the police of Kearny, N. J.

California State Medical Society.—The twenty-sixth annual meeting of the Medical Society of the State of California took place on April 21. The address of welcome was delivered by Dr. W. G. COCHRAN, chairman of the Committee of Arrangements, and replied to by Dr. R. BEVERLY COLE. Dr. H. S. ORME, chairman of the Committee on State Medicine, read a report on "Hygiene and Adulterations of Food," which was very freely dis-

cussed. "Public Management of Epidemic Disease" was the subject of Dr. A. W. PERRY's paper, while Dr. G. F. HANSON addressed the association on "Some Examples of Drug and Food Adulterations." Dr. EMMET RIXFORD, chairman of the Committee on Pathology, gave an illustrated lecture on "Protozoic Infection," and Dr. MONTGOMERY read a paper on "Erythema Caused by Medical Preparations." In the Division on Gynecology, Dr. BEVERLY MACMONAGLE presented his ideas upon "Ectopic Pregnancy," which were discussed by Dr. G. J. FITZGIBBON. "The Health of Schoolgirls" furnished the subject for Dr. CHARLOTTE B. BROWN's paper, which was read by Dr. ADELAIDE BROWN. Dr. F. W. D. EVELYN, chairman of the Committee on Medical and Surgical Diseases of Children, read an essay on "Sporadic Cretinism," which was followed by a paper on "Rachitis in California," by Dr. H. M. SHERMAN.

St. John Hospital, Allegheny, Pa.—The Board of Directors of St. John Hospital, Wood's Run, Allegheny, Pa., have elected the following visiting staff for the ensuing year: Surgical, Dr. W. S. LANGFITT, Dr. JAMES WITHERSPOON; medical, Dr. WELCH, Dr. C. S. LINDSAY; eye and ear, Dr. E. B. HECKEL; consulting medical, Dr. J. C. LANGE, Dr. W. J. LANGFITT; consulting surgical, Dr. THOS. MCCANN. The new hospital will be formally opened May 12.

The Hospital Board at Lancaster, Pa., has elected the following officers: President, H. F. YERGEY; vice-president, Rev. J. H. PANNEBECKER; secretary, F. P. D. MILLER; Executive Committee, H. F. YERGEY, Rev. J. H. PANNEBECKER, F. P. D. MILLER, I. H. OSTERTAG, JACOB SHEATH, and M. BACHENHEIMER; medical staff, Drs. LINEAWEAVER, CRAIG, LIVINGSTON, MANN, BRENHOLTZ, MARKLE, BERNTHEISEL; outdoor dispensary, Dr. ALEX. CRAIG and W. S. BRENHOLTZ; matron, Miss KELL.

Rhode Island Medical Society.—The annual meeting of the Rhode Island Medical Society will be held in Providence, June 4, 1896. The president's address will be delivered by ELISHA P. CLARKE, M.D., of Hope Valley, R. I., after which the following papers will be read: 1. "Compulsory Vaccination," by Dr. L. F. C. GARVIN, of Lonsdale, R. I. 2. "Diagnostic Features of Cutaneous Syphilis" (illustrated by lantern slides), by GEORGE HENRY FOX, M.D., of New York. The secretary of the association is FRANK L. DAY, M.D., Providence, R. I.

Professor Sappey, who recently died in Paris, at the age of 86, was the last of the generation of men of science that flourished in that city during the first half of this century. Among them were Bichot, Cruveilhier, Magendie, and Claude Bernard.

Professor Sappey's fame was made by his treatise of descriptive anatomy and his magnificent atlas of the lymphatic vessels. At the age of 80 he began a treatise of general anatomy, the first part of which has already appeared. Every morning, even to the day of his death, he locked himself in his laboratory, at *l'École pratique*, to pursue his anatomical researches.

South Carolina State Medical Society, at its session at Spartanburg, that State, on April 23, elected the following officers for the ensuing year:

President, C. C. STEVENS, Blackville; first vice-president, W. J. GARNER; second vice-president, O. M. DOYLE; third vice-president, R. B. EPTING; corresponding secretary, E. F. PARKER; recording secretary, W. P. PORCHER; treasurer, C. M. REES. Among the papers read at the session were the following: "Removal of Calculus from Urethra Hemorrhagic or Swamp Yellow Fever." Dr. J. D. DANTZLER.—"Macroscopic Sections of Excised Eyes." Dr. E. F. PARKER, Charleston.—"Penile Hypospadiasis, second form." Dr. W. J. GARNER, Darlington.—"Suprapubic Lithotomy." Dr. W. W. LESTER, Columbia.—"Cerebral Surgery for Traumatism in Relation to the Curative Effects of Epilepsy." Dr. W. H. NARDIN, Anderson.—"Reports of Surgical Cases." Dr. T. E. NOTT, Jr., Spartanburg.—"Proper Treatment of Ozena." Dr. W. P. PORCHER, Charleston. A committee—Drs. JAS. EVANS, W. F. STRAIGHT, and W. F. NAPIER—was appointed to memorialize the Legislature to enact a law to provide for the collection of vital statistics. The association will meet with the State Medical Association next year.

The Eastern Kansas Medical Society.—At its recent annual meeting held in Lawrence, Kan., the following officers were elected: President, Dr. L. REYNOLDS, Horton; vice-president, Dr. D. F. ROGERS, Ottawa; secretary, Dr. W. E. McVEY, Topeka; treasurer, Dr. DEBORAH K. LONGSHORE, Topeka.

The Relations of Physicians and Hospitals.—The following is the report of the Committee of the County Medical Association on the relations of physicians and hospital appointments:

"We have held many sessions, have listened to much testimony and have found witnesses all agreeing that a plan of making nominations of attendants at the public hospitals has been adopted. This plan bars out the profession at large and delivers all clinical material over to the control of the colleges—ostensibly for the benefit of the students, but really tending to the construction of a monopoly—which shall prevent all opportunity for the development and higher education of that large and able body of consultants who are not affiliated with the teaching faculties—thus bringing to pass the idea that consultation fees shall become professors' perquisites.

"We requested a hearing from the previous Board of Charities. Our request was ignored and unanswered. We respectfully solicited an audience with the present commissioners, in the interests of justice, and they have heard us fully and attentively. They are now deliberating as to what action they will take, until such time as the other side of the question is presented.

"All of the invited witnesses not belonging to the association have either appeared or promised to do so when invited. Some of those who are members have not come when requested. The corresponding secretary wrote to Dr. AUSTIN FLINT, who sent the chairman a letter asking the purposes of the committee, but he neither appeared nor gave to the secretary the courtesy of a reply. Furthermore, the said Dr. FLINT, in an article published in a daily journal, the *New York Herald*, is quoted as saying that 'our investigation had degenerated into an attack upon Bellevue Medical College.' This statement, in justice to ourselves, we must declare untrue, as your committee has never attacked Bellevue College, though many members of the profession have thought we ought so to do.

"We consider it only proper that members of the association should come before us when called upon.

"Finally, from evidence submitted, it does seem as if there had been a successful attempt to construct a charmed circle, entrance to which should be granted to very few—and then only by personal 'pull' with the college faculties—and quite irrespective of scientific attainments. In other words, our matured opinion is that the so-called 'reorganization' was a great conspiracy to control the whole medical patronage of New York County.

"Respectfully submitted by the Committee.

"DOUGLAS H. STEWART, M.D.,

"Corresponding Secretary."

[The BULLETIN submits the above report without other comment than that it goes to prove that the editorials which have appeared relating to this question are verified as to the facts asserted. The question is by no means at an end, since the new Board of Commissioners are proceeding with their investigation after a manner which commends itself to every fair-minded man. The profession has been heard through representatives; the colleges have had an opportunity to make reply; the profession will again be heard; and then, from the standpoint of equity, the Commissioners will render their decision, which we do not doubt will be in the line of giving the profession opportunities for practicing in the charity hospitals, as is its due, instead of the services being locked up closely in the hands of the incorporated medical schools. Had the late Board of Commissioners seen the injustice of entering into a deal which disfranchised the profession on the representations of a few biased individuals—had they heard the other side—we believe the outrageous, unjust, unprofessional act which occurred last fall in the name of that *reform* which has turned out to be a bastard of the worst type, would never have succeeded. Neither medical nor lay bosses are desirable, and a body of upright, justice-loving men, as are the present Commissioners, will see that right and not might shall prevail.—ED.]

American Climatological Association.—The following program of the annual meeting of the American Climatological Association, to be held at Lakewood, N. J., May 12 and 13, 1896, is announced. Dr. ISAAC HULL PLATT, of Lakewood, will read the address of welcome, and the president, Dr. JAMES B. WALKER, of Philadelphia, will address the meeting on "The Difficulties Attending Climatology." The following papers have been promised:

1. "Laryngeal Vertigo." Dr. F. I. Knight, Boston.—2. "Sensible Temperatures." Dr. W. F. R. Phillips, Washington.—3. "Clinical Reports of Serious Heart Lesions without Well-marked Continuous Physical Signs." Dr. H. L. Elsner, Syracuse.—4. "Congenital Mitral Constriction as a Cause of Dwarfed Lives and Irritable Heart." Dr. R. G. Curtin, Philadelphia.—5. "Febrile Endocarditis in the Aged." Dr. W. M. Gibson, Utica.—6. "The Climate of Arizona." Dr. Mark A. Rodgers.—7. "The Influence of Climate on Genito-Urinary Tuberculosis." Dr. J. C. Munro, Boston.—8. "The Treatment of Cervical Adenitis." Dr. E. Fletcher Ingals, Chicago.—9. "Mount Pocono, Pennsylvania, as a Health Resort." Dr. L. D. Judd, Philadelphia.—10. "Fibrinous Bronchitis." Dr. John Winters Brannan, New York.—11. "The Uric-acid Diathesis and Its Effect on the Upper Respiratory Passages." Dr. William F. Dudley, Brooklyn.—12. "Influence of the Climate of

Pueblo, Colorado, on Asthma." Dr. W. W. Bulette, Pueblo.—13. "Report of the Committee on Health Resorts." Dr. E. O. Otis, Boston, secretary.—14. Discussion: "The Present Treatment of Hemoptysis." Discussion opened by Dr. Charles E. Quimby, New York. Speakers: Dr. Solly, Colorado Springs; Dr. Coolidge, Boston; Dr. Musser, Philadelphia; Dr. Babcock, Chicago; Dr. Mulhall, St. Louis.—15. "The Sanatorium or Closed Treatment of Phthisis." Dr. E. O. Otis, Boston.—16. "A Plea for Moderation in Our Statements Regarding the Contagiousness of Tuberculosis." Dr. Vincent Y. Bowditch, Boston.—17. "A Rational Basis for Prophylactic Measures against Pulmonary Tuberculosis." Dr. David H. Bergey, Philadelphia.—18. "News—Old News." Dr. Samuel A. Fisk, Denver.—19. "A Study of Highly Mineralized Thermal Waters in the Treatment of Disease, Based on Experience at the Glenwood Hot Springs, Colorado." Dr. Henry H. Schroeder, New York.—20. "Mechanical Water-filters." Dr. W. D. Robinson, Philadelphia.—21. "Pneumonia in Florida." Dr. Frank Fremont-Smith, St. Augustine.—22. "A Rare Case of Dissecting Aneurism of the Aorta." Dr. Judson Daland, Philadelphia.

Illinois Medical Association.—The twenty-second annual meeting of this association closed a most successful convention at Pana, Ill., on April 29, and the following officers were elected for the year: President, G. N. KLIDER, of Springfield; secretary, J. M. NELMS, of Taylorville; vice-president, J. M. Huber, of Pana; treasurer, J. H. MILLER, of Pana; censors, C. L. CARROLL, Taylorville; S. E. MUNSON, Mount Pulaski; WILLIAM THOMPSON, Cerro Gordo; and J. J. CONNER, Pana.

Pneumonia Statistics Wanted.—The BULLETIN takes pleasure in publishing the following letter from Dr. THOMAS J. MAYS, of 1829 Spruce street, Philadelphia:

To the Members of the Medical Profession:

My two collective reports, already published, on "Ice-cold Applications in Acute Pneumonia" give a record of 195 cases so treated, with 7 deaths, or a mortality rate of 3.58 per cent.

Being desirous of making as full a report as possible on this subject, I take the liberty of asking those who have tested this measure to kindly give me the result of their experience. Full credit will be given to each correspondent in the report which I hope to publish. Blanks for the report of cases will be furnished by me on application.

THOMAS J. MAYS, M.D.

May 1, 1896.

Drugs Disappear from Bellevue Hospital.—The apparent loss of about \$10,000 worth of drugs purchased during the last year for the use of the Department of Charities is being investigated by the Commissioners. Drugs of that valuation, dispensed from the wholesale department on the usual requisitions, have apparently been stolen or wasted; for the Commissioners are satisfied that they were not needed. President CROFT's report is awaited with interest.

Gloucester Has a Jenner Society.—The recent epidemic of smallpox in the town of Gloucester, England, was recently made the subject of special reference in quarter sessions held at that place, and a resolution was passed requesting serious consideration of the Vaccination Acts by Her Majesty's ministers. The anti-vaccinationists, who all along have opposed the prophylactic measure afforded by vaccine, are credited with responsibility for the high percentage of mortality; the fact that other places have enjoyed a comparative immunity would seem to give a degree of credence to the charge. A concentration of effort on the part of the champions of JENNER to wipe out untruths advanced by anti-vaccina-

tionists has taken the form of organization, and efforts will be made to force the retirement of the former from the notoriously embarrassing position in which they have placed themselves. The object of the organization will be to prevent the teachings of anti-vaccinationists that contain erroneous statements as to vaccination, and check the pernicious work that is credited with imperiling hundreds and destroying scores of lives. The society will be named after the illustrious JENNER.

District of Columbia Reforms.—The Commissioners of the District of Columbia have returned to the President, with their indorsement, the House bill to provide for the incorporation and regulation of medical colleges in the District. The bill now needs but the signature of the President to become a law. It provides that it shall be unlawful for any medical college, claiming authority to confer degrees and not incorporated by special act of Congress, to conduct its business in the District unless the college shall be registered by the Commissioners and shall have a written permit from them. The Commissioners are required to make regulations concerning the form of application, etc. It is to be deemed a misdemeanor if there is any failure to comply with the act; and offenders, upon conviction, shall be fined not less than \$25 nor more than \$250, and in default of payment shall be imprisoned in the District jail for not less than 30 nor more than 90 days.

German Surgeons.—The twenty-fifth congress of the German Surgical Society will be held at Berlin, May 27 to 30.

Association of Military Surgeons.—The following named surgeons of the National Guard of the State of New York have been appointed by Governor Morton to represent the State at the sixth annual meeting of the Association of Military Surgeons of the United States: Majors Robert V. McKim, Geo. R. Fowler, Herman Bendell, and Floyd S. Crego. The meeting will be held in Philadelphia on May 12, 13, and 14. There will be representatives present from several military services of the United States, and an interesting program of scientific papers has been arranged.

Among those who will read papers on subjects pertaining to the service will be: Surgeon H. G. Beyer, U. S. N.; Captains C. E. Woodruff, U. S. A.; L. A. La Gade, U. S. A.; Dr. Samuel Sexton, New York; Colonel C. H. Alden, U. S. A.; Lieutenant-colonel A. A. Woodhull, U. S. A.; Colonel N. Senn, Surgeon-general, Illinois N. G.; Captain J. J. Erwin, surgeon, O. N. G.; T. C. Craig, U. S. N.; Lieutenant-colonel C. R. Greenleaf, Deputy Surgeon-general, U. S. A.; Major J. van R. Hoff, U. S. A.; General J. D. Griffith, N. G. Mo.; Majors Halery, Havard, A. C. Girard, W. C. Shannon, George W. Adair, U. S. A., and J. C. Wise, U. S. N.

Coming Society Meetings.—American Laryngological Society, at Pittsburg, Pa., May 14, 15, 16. HENRY L. SWAIN, M.D., secretary, 232 York street, New Haven, Conn.

Association of Military Surgeons of the United States, at Philadelphia, Pa., May 12, 13, 14. EUSTATHIUS CHANCELLOR, M.D., secretary, 613 Pine street, St. Louis, Mo.

American Climatological Association, at Lakewood, N. J., May 12, 13. GUY HINSDALE, M.D., secretary, 3943 Chestnut street, Philadelphia, Pa.

Medical Society of the State of North Carolina, at Winston, N. C., May 12, 13, 14. ROBERT D. JEWETT, secretary, Wilmington, N. C.

American Orthopedic Association, at Buffalo, N. Y., May 19, 20, 21. JOHN RIDLON, M.D., secretary, 103 State street, Chicago, Ill.

Illinois State Medical Society at Ottawa, Ill., May 19, 20, 21. JOHN B. HAMILTON, M.D., secretary, Room 20, P. O. Building, Chicago, Ill.

Missouri State Medical Association, at Sedalia, Mo., May 19, 20, 21. FRANK R. FRY, M.D., Secretary, 3133 Pine street, St. Louis, Mo.

Nebraska State Medical Society at Lincoln, May 19, 20, 21. GEORGE WILKINSON, M.D., secretary, Omaha, Neb.

Pennsylvania State Medical Society at Harrisburg, May 19, 20, 21. WM. B. ATKINSON, M.D., Secretary, 1400 Pine street, Philadelphia, Pa.

Washington State Medical Society, at Tacoma, May 19, 20, 21. R. L. THOMSON, M.D., secretary, Spokane, Wash.

Foreign Brethren.—The University of Edinburgh has conferred the honorary degree of LL.D. upon Sir J. RUSSELL REYNOLDS, Bart., and Prof. E. von BENEDEN, of the University of Liège.

Professors HEGAR, of Freiburg, HERING, of Leipzig, and KNAPP, of New York, have been elected honorary members of the Imperial-Royal Society of Physicians of Vienna.

Privy Medical Councillor Prof. Dr. BEHRING, of Marburg, has been elected an honorary member of the Society of Physicians of Constantinople; of the Imperial Russian Society of Physicians of Wilna; of the Imperial Italian Society of Physicians of Mailand; and of the Imperial-Royal Society of Physicians of Vienna.

At a meeting of the French Academy of Medicine, held on March 31, Dr. WARDELL STILES, of Washington, D. C., was elected a foreign correspondent.

At a meeting of the Royal College of Physicians of London held on March 30 Dr. SAMUEL WILKS was elected president in the place of Sir J. RUSSELL REYNOLDS, who has retired. Dr. WILKS is a distinguished member of the medical profession, being consulting physician to several of the London hospitals. He is also a member of the Senate of the University of London and of the General Medical Council.

Navy Items.—Passed Assistant Surgeon H. N. T. Harris was detached from the *San Francisco* and granted three months' leave, with permission to leave the United States.

Assistant Surgeon E. M. Shipp was ordered to examination for promotion, May 4, at New York city.

Medical Inspector G. F. Winslow was ordered to New London Station, May 9.

Surgeon Clement Biddle was detached from the New London Station, May 9, and ordered to the *Monongahela*, May 14.

Assistant Surgeon J. M. Moore was promoted to passed assistant surgeon.

Personal.—The fiftieth anniversary of the active medical practice of Dr. ALFRED MERCER, of Syracuse, N. Y., was celebrated at the Globe Hotel on April 27. Covers were laid for 75 persons, a large number of whom were professional associates and friends

of this well-known physician. Dr. H. D. DIDAMA, of Syracuse, presided and delivered one of his felicitous addresses. Other speeches were made by Dean L. M. VERNON, of the Syracuse Medical College, by Chancellor JAMES R. DAY, of the same institution, by ex-Senator FRANK HISCOCK, Rev. S. R. CALTHROP, D.D., and also by Dr. MERCER himself.

Dr. J. B. SCHWATKA, assistant medical examiner for the Health Department of Baltimore, Md., has been appointed one of the assistant surgeons of the Fourth Regiment, of that city.

Dr. F. A. MILLER, of Owensboro, Ky., has been appointed first assistant physician at the Western Kentucky Asylum for the Insane.

Dr. CHARLES E. NAMMACK of New York, has removed to No. 42 East Twenty-ninth street.

Dr. R. W. ALTEN has been elected president of the village of Portland, Mich. He is a member of the State Medical Society.

Dr. THOMAS FLINT, of Hollister, Cal., has been elected grand high-priest of the Royal Arch Masons.

Dr. H. O. DODGE, of Boulder, Cal., has been elected Department Commander of the G. A. R. for the Department of Colorado and Wyoming. Dr. DODGE has been a resident of Colorado since 1871, and was graduated from the Chicago Medical College.

Dr. SAMUEL KETCH has removed to 72 West 55th street.

Dr. W. A. SHUFELT has removed to 36 West 21st street.

Dr. L. B. COUCH has been appointed health officer of South Nyack, N. Y.

Obituary.—Dr. JOHN W. JACKSON died at his home in Rockaway, N. J., on May 3, aged 76. He was the son of Dr. JOHN DARBEE JACKSON, in whose office he commenced to practice. He was at one time engrossing clerk of the State Senate, and was director of the Board of Freeholders of the county. For many years he was a commissioner of the Morris Plains Asylum, and also a director in the National Union Bank of Dover, N. J. He was graduated from Jefferson Medical College in 1845.

Dr. C. H. NICHOLSON died at his home near Independence, Ky., on Thursday, April 26, 1896. He was noted chiefly as the inventor of the system of quadruplex telegraphy, by which four messages can be sent on one wire at the same time. This invention, like many that have preceded it, has been improved by others than the one who really originated the discovery, and the secondary parties taking hold of the good invention have reaped all the benefit.

Dr. PETER IGNATIUS SPENZER, at his home in Cleveland, O., on April 27. Age 59 years. He was born in Germany, and during the Civil War in this country he served as a hospital steward in Louisville, Ky. After the war he went to Cleveland, where he previously resided, and entered the Wooster Medical College, from which he was graduated in 1871.

Dr. J. B. K. MIGNAULT, in Detroit, Mich., on April 25. He was born in Montreal in 1817, and was graduated from McGill Medical College in 1840, and located at Mt. Clemens, Mich. During the war of the rebellion he was surgeon of the Eighth Michigan Cavalry. He has resided in Detroit since 1875.

Dr. W. C. GIBSON, in Vineville, Ga., April 25, aged 39 years. He was graduated from the Jefferson Medical College in Philadelphia, and settled for practice in Macon, Ga., 12 years ago. He has since lived there, and was on a visit to Vineville at the time of his death.

Dr. CALEB S. PURKITT, in Carondelet, Mo., on April 24: He was graduated from the Missouri Medical College in 1845, and had practiced his profession in St. Louis for 51 years. Dr. PURKITT was born in Boston in 1820.

Dr. T. J. BARTON, suddenly, in Zanesville, O., on April 22, from apoplexy. Age 48 years. He was graduated from Bellevue Medical College in 1873.

Dr. HENRY M. FISK, at his residence in San Francisco on April 17. Age 72 years. He was a member of the State Board of Health and also a State Senator.

Dr. EDWARD MITCHELL, in Memphis, Tenn., on April 26; age, 50 years. He was born in Hinds County, Miss., and was graduated from the Philadelphia Medical College.

Dr. GEO. W. COPELAND, in Middleboro, Mass., on April 29. Age 52 years. He was educated at Dalhousie College, Halifax, N. S., and was graduated from Jefferson Medical College, Philadelphia.

Dr. W. H. HILL, in Lafayette, Ind., on April 24. He was graduated from Rush Medical College in Chicago in 1872.

Dr. W. H. GRIM, in Beaver Falls, Pa., on April 28, aged 63 years. He was graduated from the Jefferson College in Philadelphia, in 1869.

Dr. S. R. MAGEE, of Riverside, Cal., in Los Angeles on April 22.

Dr. GEO. CLARK, at his home in Benton Township, Iowa, on April 22.

Dr. BYRON SPARROW, of Portland, O., in Tallapoosa, Fla., on April 22.

Dr. FRANK BEAUCHAMP, in Sherman, Ky., on April 27.

Dr. A. M. HILL, in Clearfield, Pa., on April 25; age, 74 years.

Dr. A. P. ROGERS, in Canyon City, Col., on April 26, aged 60 years.

Dr. CONRIED SECRIST, in Watseka, Ill., on April 26, aged 67 years.

Dr. J. W. L. BAKER, at Berryville, Ill., on April 29, aged 68 years.

Dr. ABEL ALLEN PIERCE, in St. Johnsbury, Vt., April 20, aged 71 years.

Dr. CLEMENT O. LE BLANC, of Boutouche, N. B., on April 20, aged 27 years.

Dr. AUSTIN PATTON, at his home in Walnut Hill, near Salem, Ill., on April 15.

Dr. GEO. T. JACOBY, at his home in Pittsburg, Pa., of pneumonia, on April 28.

Dr. HOWARD LAFORCE, in Bedford, Ind., of dropsy, on April 26. Age, 60 years.

Dr. S. S. MOWFAT, Washington, D. C., was killed by a cable car, in that city on April 25.

Dr. JOHN ANDERSON GEOGHEGAN, at his home in Warren County, North Carolina, on April 17.

Dr. L. L. CARTER, in Dallas, Tex., on April 9.

Dr. C. J. HALL in Medford, Ore., on April 19.

PUBLISHERS' DEPARTMENT

ELECTRO-THERAPY

Electrical science being distinctively of modern origin, new principles and new economics, and medical applications are announced almost daily. Among the most recent electrical instruments that are of special value in electro-therapeutics is the Monell upright faradic apparatus. It was designed by Dr. S. H. MONELL.

It is portable, and is said to be the most complete battery ever made, because it introduces the first accurate and scientific method ever given to the medical profession for measuring and recording the therapeutic dose of the interrupted secondary induction current. A complete description of this apparatus will be forwarded to any physician upon request to the manufacturers.

An advertisement of the manufacturers, The Jerome Kidder Manufacturing Company, 820 Broadway, New York, appears in this issue. The very valuable apparatus manufactured for years by this company is too well known to call for further comment. Their name is a synonym for integrity, reliability, and scientific accuracy.

AN AID TO HEARING

F. HISCOX, 853 Broadway, New York, is the inventor of a device to obviate deafness. In regard to a recent application of his invention he says that much interest is manifested by physicians in a case of almost total deafness that has been nearly, if not entirely, relieved by this inexpensive appliance. He further states that the benefit in this particular case is all the more striking since every other known device, and the most skillful treatment had failed to afford relief. The appliance is easily and comfortably adjusted, and is practically invisible. A descriptive pamphlet will be forwarded to any physician upon request, and a trial of the device will be afforded to any patient at the address above given.

VITOGEN—AN ANTISEPTIC

The constant increase in antiseptics would seem to indicate shortcomings in those which are already in vogue. Among the latest claimants for recognition in the field of antiseptics is vitogen, made by the G. F. Harvey Co., of Saratoga Springs, N. Y. It is said to be nontoxic and odorless, advantages that appeal very strongly to physicians. The manufacturers state that the results which have followed the use of vitogen in a variety of cases have been highly favorable.

\$600.00 IN PRIZES

The prize contest which the Palisade Mfg. Co. announces will, no doubt, result in the submission of many articles of merit on "The Clinical Value of Antiseptics, Both Internal and External." The prizes are extremely liberal, and the well-known professional and literary eminence of Dr. FRANK P. FOSTER, who has consented to act as judge, is a sufficient guaranty of the impartiality which will be observed in awarding the prizes. Further particulars as to conditions, etc., can be obtained by addressing the above-named firm at the home office, Yonkers, N. Y.

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THE WANDERING CELLS OF THE ALIMENTARY CANAL

IT has been claimed for the wandering cells that they form a distinct tissue in the body which has undergone a peculiar development converting it from a system of free cells, all possessed of similar characters, to one characterized at first by being composed of three kinds of cells, while later in its history it becomes specialized in different portions of the body, in the blood, the great extravascular spaces, and, as we now see, in the walls of gut. In each of these places the three kinds of cells are present, though the cells of any one place differ from those found elsewhere sufficiently to enable us to recognize them as being distinct. The magnitude of these structural differences in the case of the gut of carnivora is brought home to us by the fact that when HEIDENHAIN submitted his preparations of the intestine to EHRLICH the latter was unable to rank the cells there present (those which contained granules staining with acid dyes, *i.e.*, the oxyphile cells) with those which he had classified from other parts of the body.

These views receive fresh support expressed in an exhaustive paper by Drs. HARDY and WESTBROOK and published in the *Journal of Physiology*, Vol. XVIII, 1895, not only from the facts of structure set forth by the authors, but also from such scanty light as has been thrown on the activity of the splanchnic cells; for the activities displayed by the oxyphile, the hyaline, and the basophile cells are distinct. The oxyphile cells, for instance, may be numerous without, so far as one can see, any immediate reference to the number of hyaline cells; the oxyphile cells, too, chiefly wander into the crypt epithelium, while the hyaline cells chiefly wander into the villi. Again, in the case of the absorption

of iron, it was seen that the hyaline cells alone charged themselves with the iron compounds.

The authors mentioned state further that the absorption of iron by the hyaline cells has an interesting significance, since it widens our conceptions of the activities of these structures. We now know them to ingest solid particles and also to absorb into vacuoles in their cell substance and precipitate there matters previously in solution in the fluids which bathe them.

If we turn to the specialization of the sporadic mesoblast in different parts of the body, the structures found in the gut suggest certain pregnant reflections. The gut of the mammalia, with the exception of the esophagus and extreme portion of the rectum, contains, in its mucous coat, a sheath of lymphoid tissue crowded with wandering cells. Here and there in this sheath are foci of proliferation specially related to the lymph-stream and apparently peculiarly the seat of origin of hyaline cells. These are the solitary follicles and Peyer's patches. No such development of lymphoid tissue is found in the gut either of amphibia or of reptilia, nor are wandering cells so constantly present in large numbers.

There appears to be a specialization of the wandering cells in different regions of the body. A comparison of the condition of the lymphatic system and lymphoid tissue of the body as a whole in different vertebrates presents this fact in a new light. In the less-specialized lymphatic system of amphibia and reptilia the peripheral part consists largely of irregular spaces rather than of defined vessels, and lymphoid tissue is not distributed along their course in a manner comparable to the lymphoid masses which lie as lymphatic glands in the course of the lymph

vessels of mammalia. In the gut the amount of lymphoid tissue is exceedingly small, and the contrast in this respect between a section of the small intestine of a frog or snake and that of a mammal is very great, and the spleen of a frog does not contain masses of lymphoid tissue such as form the malpighian bodies of the spleen of mammalia.

In these groups of animals, in place of the widespread development of lymphoid tissue in lymphatic glands, in the gut wall, and the solitary follicles and Peyer's patches of the gut, etc., there is a concentration of this tissue in one organ, namely, the thymus gland. In the mammalia a very different condition is found. The lymphatic vessels now ramify as specialized tubes to the most remote parts of tissues, and the lymphoid tissue, instead of being gathered into one mass, is scattered about the body in masses having special relations to the lymph-stream from definite areas of the body.

Drs. HARDY and WESTBROOK dwell upon the significance of this arrangement, and assert that it is obvious when we consider the effect of localized inflammatory lesions. If an infection of some part of the body take place, such for instance as the leg, the effects of the lesion may be traced along the lymphatic vessels of the thigh as far as the lymphatic glands of the groin, but there it abruptly ends. The afferent vessels of those glands bring lymph in quantities above the normal, laden probably with noxious substances in solution in the plasma, certainly with dead and dying wandering cells and even with microbes. With this disorganized lymph the glands deal, eliminating its poisons and destroying its effete corpuscles; and so long as the glands are capable of coping with the difficulty, so long will the lesion remain localized.

In the processes which go on during inflammation we probably see merely a gross exaggeration of events occurring under normal conditions. Each group of glands in the body is related to a definite group of tissues in that it receives the lymph-flow from these tissues, and we must suppose that the numberless events to which the body is exposed affect the delicate balance of the chemical process, so that from time to time metabolites appear which so far depart from the common, either in quantity or quality, as to deserve the title "abnormal." The effect of excessive exercise may be cited as a case in point. Of such bodies, if we may trust the phenomena of disease, lymphatic glands act so as to preserve the mean composition of the lymph. In the spleen again we have tissue possessing broadly the same histological characters related to the blood-

stream as lymphatic glands are related to the lymph-stream. The processes which we know to occur in the spleen resemble those which are so obvious in inflamed lymphatic glands. In the spleen effete solid materials, such as red and white corpuscles and bacteria, are eliminated from the blood, and there, too, the plasma suffers chemical changes.

An instance of the action of the spleen on the blood plasma is furnished by animals fed with peptonate of iron. In these the spleen will be found to contain an incredible amount of arrested iron held in part by wandering cells entangled in the reticulum, and apparently in part by the cells of the reticulum itself. Unless we make the rash assumption that the iron is carried from the intestine wholly by wandering cells—an assumption which scarcely agrees with the fact of the rapid absorption of iron by the stomach and the paucity of leucocytes there—then some of this very large amount found overloading the spleen must have been removed from the blood-plasma. If we turn now to that portion of the lymphoid tissue and wandering cells, we see that the great development of this tissue in the gut of mammalia is only a part of the developmental process which has perfected the peripheral vessels of the lymphatic system, and placed on their course masses of lymphoid tissue, each having a special functional relation to the tissues drained by its afferent lymph-vessels. And as these masses of lymphoid tissue modify and control the histological structure and chemical composition of that peculiar overflow of the tissues and vascular system called lymph, so the lymphoid tissue of the gut with its contained wandering cells modifies the composition of that special lymph which owes its composition chiefly to the activity of the endodermic epithelium.

Period of Infectiousness of Scarlatina.—The suit of ALFRED KEEGAN vs. Birmingham City (England) Fever Hospital, which was recently decided against the hospital authorities, judgment being awarded in the amount of \$250, will probably deter officers in charge of such institutions from laxity in the discharge of future patients under their care, and prove a lesson worthy of note by similar concerns in this country. The circumstances were these: On August 24, 1895, ALFRED KEEGAN's boy was attacked by scarlet fever, removed to the City hospital, and treated there until October 8, when he was discharged. The parents of the boy noticed a sore behind his ear, and called in a Dr. SIMPSON, who ordered the little fellow isolated, considering him still in the infectious stage of the disease. Three other children contracted the disease and died as a result of the ill-judgment of the hospital authorities, and the father accordingly instituted an action for damages.

ORIGINAL CONTRIBUTIONS

ECZEMA OF THE FLEXURES, AND ITS TREATMENT

By J. ABBOTT CANTRELL, M.D.

Professor of Diseases of the Skin in the Philadelphia Polyclinic and College for Graduates in Medicine; Dermatologist to the Philadelphia Hospital, the Frederick Douglas Memorial Hospital, and the Southern Dispensary, Philadelphia

I WISH to call attention to an affection which manifests itself in a variety of ways, and to demonstrate that eczema frequently attacks the flexure surfaces of the joints. While it is true that eczema is usually an inflammation of the skin, at the same time it must be recognized that there is often quite as much hypertrophy as inflammation present. It is most aggravated at the points where the skin is soft and pliable, while often when it attacks parts of the body where the skin is thick and tough it may be a strictly hypertrophic manifestation, or an acute or chronic inflammation.

The eruption which we often see at the flexures of the joints is recognized as eczema with difficulty, but the fact remains that while this condition so closely resembles hypertrophic conditions of the skin, it is in reality a true eczematous eruption. It is most likely to appear on the flexor surfaces of the elbows and knees, and when we recall the fact that they are usually very soft and pliable, in order to allow of the manifold motions of these joints, it is of course a settled point that if their power of action is limited by any pathological change their motion will be painful, and it becomes important to consider any of the conditions that may interfere with the free play of these surfaces. The only difference between the bend of the elbow and the knee is that the affection is likely to be more aggravated and extensive in the latter than in the former. It is not essential that the disease should be induced by occupation, for it may be found among those whose lives would contra-indicate any likelihood to the development of irritation in these parts. Many of the cases examined have presented rather unusual symptoms, but upon close inspection they have all been found to be characteristic. In no instance was it deemed necessary to make a histological examination because the external appearance corresponded so closely with the ordinary characteristics of eczema that there could be no doubt of the correctness of the diagnosis. It is true, however, that some points of the eruption strongly resembled some of the other skin diseases, but they were not sufficiently marked to lead those familiar with dermatological work to make an error in diagnosis. It is necessary to remember, in studying these cases, the lines and furrows of the natural skin, which are so placed that motion is assisted rather than impeded, and which adapt themselves to any required position. In the erect posture these folds are obliterated, and are as smooth and pliable as ever. The skin in these regions, besides being soft and pliable, is elastic, as we may recognize by the snap with which it returns to its natural

position after being pinched between the fingers. Eczema in these localities resembles other skin diseases so closely that it demands separate study. Psoriasis could be simulated by the thickened and marked edges of the patches, but not in the scaling. The edges are so like psoriasis that one is likely to overlook the fading border usually found in eczema, while the apparent coalescence of the lesions may be prominently forced upon the mind. It may also simulate lichen planus, with papules covered with slight scales. Upon close examination, however, the papules do not show the laminated scaling of psoriasis, but do resemble to some extent, the fine scaling often found with the papules of lichen planus. Other conditions often present may suggest syphilis, but close examination or inquiry will be sufficient to differentiate this condition. Most skin affections at one time or another resemble other diseases of the skin very closely, but there are always some pathognomonic signs present which will suffice to make a diagnosis. It is therefore important for the practitioner to be acquainted with the many manifestations that any one disease may assume during the course of its existence. Eczema of the flexor surfaces may occupy a large portion of the region in one case, while in another the space involved may be very small. The objective symptoms are of course proportionate to the area involved.

The popliteal space is decidedly thickened, almost hypertrophied, and this condition is not confined to any one portion of the diseased area, but is common to the whole affected region. The natural lines, as well as the intermediate spaces of the skin, look alike. The lines and furrows, which in the natural state are almost unnoticeable, are distinctly apparent, standing out as they do in the natural movements of the part. Upon extending the leg they do not return to their normal position, but remain perfectly distinct. The thickening differs according to the extent of the inflammatory area. The infiltration in the majority of instances is very decided, but the edema is not so marked as might be expected. The edges of the eruption are distinct, and apparently raised, but this is only slightly apparent.

After a longer or shorter period the upper layers of the epidermis become detached, and reveal a moist, reddish, disagreeable inflammatory area, through which one may see small punched-out portions which to some extent resemble syphilitic ulcers. This, however, is not a constant symptom. After existing for a considerable period in persons constantly using the part, these natural linear folds will develop fissures, which may extend deeply into the tissues, or be very superficial. They may run from one side of the popliteal space to the other, and cause a great deal of pain and discomfort. When the inflammation is not very acute the thickening seems to extend beyond the apparently diseased surface. To the "feel" this condition does not differ in the least from the same condition witnessed throughout the rest of the diseased area.

At times the moisture is as great as in the eczema rubrum, where the eruption is of a high grade of inflammation. The skin seems to be too short to cover the region, and shows lines up and down, making the part look as if the skin was tightly drawn. This streaky condition is not only apparent over the diseased surface, but may spread beyond the affected patch. Around the borders of the patch, and beyond, these isolated or aggregated papules may be seen. Where they are aggregate they may be arranged circularly or in a straight line. They do not show all the characteristics of a papular eczema, but resemble lichen planus. When these papules are discrete and not acutely inflamed they appear of a deep reddish color around the borders, and the thickening seems to extend beyond this redness. The aggregated patches have the same dull reddish color. When acutely inflamed they have the appearance of an acute papular eczema, with its consequent moisture and crusting, but after the disappearance of the acute inflammation the thickening does not disappear, as it usually does in an ordinary papular eczema, but remains for some time afterward, and pinkish red spots, which fade in color toward the periphery, are present. There is usually a dark crust in the center of the papule, while there is some slight scaling of the edges. As the skin seems to be peeling off it is raised toward the center, so that a piece of paper can easily be thrust beneath it. At the bend of the elbow the disease differs slightly. It is not likely to show the same amount of thickening. It is more likely to be in the acute stage, and there is usually more edema and more pain. The eruption in either locality is distinctly chronic, both in the manner of the attacks and in the duration.

Treatment.—The treatment is more effective and requires less time at the bend of the elbow than in the popliteal space. In the latter place the results are very slow. The result of treatment will depend largely upon the active or passive character of the inflammation, and upon the amount of infiltration and thickening. In the acute inflammatory stage the remedies must be astringent and palliative. If the inflammation is extensive, and is found beyond the borders of the patch, local sedatives may be demanded, as, for instance, the ordinary solution of lead, a saturated solution of boric acid in water, the black wash of the American Pharmacopeia (3 to 10 grn. of calomel to the ounce of limewater). Preference may be given to the solution of chlorinated soda (Labarraque's solution). These remedies may be applied for an indefinite period without doing any harm, and if employed wisely the effect may be seen early. After they have been applied for from ten minutes to half an hour at each application, some soothing ointment should be used. The parts should not be dried with a towel, but simply mopped dry with some soft material, such as a Turkish bath-towel. The ointment may be made of zinc oxide, vaselin, lanolin, ointment of rosewater, or, when a stiffer ointment is desirable, a little more wax or

starch may be added. If these are not astringent enough, it may be advantageous to add to the ointment calomel, acetanilid, alumnol, bismuth subcarbonate, calamin, in the proportion of from 20 to 40 grn. to the ounce, or boric acid in the strength of from 1 to 2 dr. to the ounce of ointment-base. In the acute stage some paraffin paper and a roller bandage may be applied after the ointment, and at all times the parts must be well protected. In the chronic form the use of remedies must extend into the cauterizing grade, but they must not be too caustic. Here the best selection would be salicylic acid, sulphate of zinc, iodide of lead, in the proportion of from 20 to 30 grn. to the half-ounce of ointment-base. If these are unsatisfactory the strength may be increased each time until the proper proportion is reached. If one of these remedies does not prove serviceable, it may be necessary to use the stick of nitrate of silver; or caustic potash may be applied, and then one of the less stimulating ointments may also be used. When the rough portion of the skin has been removed, the parts underneath will need treatment; otherwise the condition will return as severely as before. This part of the treatment will consist in the application of some ointment selected from the milder group, continued for an indefinite period. This variety of eczema requires the most thorough study on the part of the practitioner, and he will be obliged to use remedies which in other instances he would be afraid to employ.

Philadelphia, Pa.; 315 South Eighteenth street.

ALCOHOL IN THE TREATMENT OF ACNE ROSACEA

By R. ABRAHAM, M.D.

District Physician to Mt. Sinai Hospital

THE multiplicity of new methods, and the daily introduction of new drugs, in the treatment of various diseases should make one pause ere he thrusts an additional fad on the already overstocked physician. This consideration is perhaps more fittingly applicable to the writer who has the hardihood to take up a threadbare disease, with the paradoxical assurance to cure it with the same agent that, in the minds of many, is supposed to be the cause of it. If this be true, then I would say that in my case the end justifies the means.

In this paper I shall venture to describe and recommend a measure to cure acne rosacea, a disease of the skin which is at once old, common, and abominable, disfiguring the young as well as the old, and in the minds of the laity serves as an index to the moral obliquity of the afflicted victim. The method employed is attended with but a slight amount of pain, and leaves no marked after-effects; it enjoys the advantage of being free from the employment of ointments, pastes, lotions, and scarifications, all of which tend to inconvenience the patient and make him rather forego the desired treatment. Before proceeding to describe the new mode of treatment

I find it necessary to refer briefly to the clinical picture acne rosacea presents.

More than acne vulgaris, acne rosacea shows a predilection for the face, the nose especially being its point of attack. Starting at a lower part of the organ, it spreads to adjacent parts like the lower half of the face, the chin, the cheek bones, and the forehead. The whole face is very seldom involved. Sometimes in the most aggravated form of rosacea, where a large area of the integument of the face is affected, scattered small areas of skin appear perfectly normal. The classical comparison of lupus erythematosus of the face to the wings of a butterfly is very often admirably seen in acne rosacea, the difference being that the aerial creature in the latter perches on the lower portion of the nose and cheeks.

As a rule writers divide the lesion into three grades, although the line of demarcation is never hard and fast. Very often one grade insensibly merges into the other. The first grade is that in which a hyperemia of the nose, or nose and adjacent structures, is the main lesion. Sometimes there is only a slight redness over the tip of the nose, readily disappearing on pressure. Then again the whole lower half of the nose may be congested. This congestion is either very red, pale red, or bluish red. The second grade includes not only the first one, but is characterized additionally by small or large dilated blood-vessels running in different directions over the nose and face. Small or large papules, pustules, or tubercles are seen over the affected parts. There may be only one or two tortuous blood-vessels running along the nose, or there may be many over the nose and face. In this form of acne rosacea there is in some cases quite considerable hypertrophy of the cartilages of the nose. The third form is that in which lobules and tubercles grow out of the end of the organ, and which, very often, attain great size. The nose is enlarged in size, and presents a striking resemblance to a big-sized potato, with many tuberosities on it.

As the treatment here recommended was only employed in the first two grades, I shall leave the therapeutics of the third form out of consideration.

While it is recognized that the disease is caused in the great majority of cases by gastro-intestinal derangement, yet efforts directed toward the removal of the cause will not remove the lesion, although it may check its progress. In this, as in a great many other skin diseases, the physician can never rely on internal treatment only; he must always be equipped with an abundant stock of local remedies,—abundant, because no one skin disease will in all cases respond to the same therapeutic applications. Acne rosacea is eminently no exception. Sulphur, resorcin, iodine, and mercury, in different strengths and combinations, are employed. Scarification of the blood-vessels and electrolysis are adopted with the dilated vessels. Yet with all these remedies at hand, great perseverance on the part of physician and patient is necessary for relief or cure. Very frequently a

complete cure is never effected in spite of the best efforts. Electrolysis and scarification very often leave scars, which, to some sensitive patients, are just as annoying as the original blemish.

The treatment that I would venture to offer, and which was very successful in my hands, is, as stated above, free from all objectionable features. I employ 95-per-cent. alcohol for local subcutaneous injections. The immediate effect of the injection is a swelling and anemia of the area subjected to it; this condition lasts but a few moments; the next occurrence is an increased redness of the same part of the skin subjected to treatment. The redness lasts from half an hour to three or four hours; thereafter, it gradually disappears, and the treated skin-area assumes normal color. The dilated blood-vessels and papules will be found, after repeated injections, to undergo slow but sure obliteration, until finally the whole lesion disappears, and the affected integument appears normal. The treatment, in some cases, lasts eight or ten weeks; in others, a great deal longer.

The technique is very simple. Take a clean hypodermic syringe, with a clean, thin needle. Fill the syringe with 20 or 30 drops of alcohol (95 per cent.). Then select the part of the nose or cheek which you intend to treat; pinch it up and make your injection. If possible—and it is easily accomplished on the nose—compress with your fingers the part injected so as to retain the alcohol longer in the place. I never use more than 30 drops of the fluid, and have never made more than three injections a week. By being aseptic, there will be no inflammation, and in the absence of it the remedy can be applied to the same place repeatedly until the desired result—a cure—is attained. It appeared to me that the first form of rosacea, wherein hyperemia of the skin was the main and only lesion, was most amenable to this treatment. The second grade required greater perseverance on account of the papules and pustules present. However, both forms stood it well, as both forms in my experience were cured. Now I should say, in concluding, that I offer this treatment not as a specific.

I imagine that many a case of acne rosacea may not be cured by this, as it may not by any other form of treatment; but considering the uniform success in my cases, and the cleanliness and convenience that this new measure offers alike to physician and patient, it, in the mind of the writer, certainly merits further trial and consideration. I might profitably add an item which may lend courage to those who may want to give this treatment a fair trial, namely: that it finds a justifiable parallel in the treatment of nævus vascularis with alcohol. As a matter of fact, I adopted local alcohol injections in rosacea, after I tried it successfully in a few small nævi of the head and face, the actual cautery having been stubbornly refused.

I shall append the histories of six cases which I have marked in my notebook "cured."

Case I.—Miss H., aged 16, hyperemia of the lower two-thirds of her nose. Redness disappears

on pressure; aggravated by entering a warm room and at menstrual period. Parents claim that the lesion commenced in infancy. Skin of nose feels normal; cartilages not thickened. Appetite good, but at times she suffers from constipation. No anemia. Has been treated for years at various places and by various men. Local subcutaneous injection of 95-per-cent. alcohol kept up three times a week for six weeks. At present the girl's nose looks normal in color. There are some exceedingly fine scars under the local skin.

Case II.—M. H., aged 32. Two years ago he was treated for "a small painless inflammation" on the lip and wings of his nose. His business forced him to give up the treatment on account of the medicinal applications. In time the "inflammation" spread, and now the lesion involves the lower part of the nose and adjacent skin of the face. The lesion consists of congestion, a few dilated blood-vessels, some papules and a few pustules. Stomach and bowels moderately good. Does not drink excessively, but is fond of claret and Bass's ale. Objects to salves. Started local injections of alcohol (95 per cent.) 30 drops for each injection. The second injection, owing, I believe, to an antiseptic sin, produced considerable swelling and burning of the nose so that for some time the patient refused, and I hesitated to resume, the treatment. The injections taken up again and continued uninterruptedly for four months, with results satisfactory to both physician and patient.

Case III.—J. J., policeman, aged 35; health good, except for occasional rheumatic pains in different joints. No specific history. This was about as aggravated a case of acne rosacea as one could see. In addition to the rosacea, the patient suffered from a pustular acne vulgaris of the face and back of the trunk. He had been already treated with different kinds of external applications; but with apparently little benefit. I put him under the alcohol treatment. Owing to the patient's irregular attendance, the treatment lasted pretty nearly a half-year, but to-day the man is entirely cured.

Case IV.—M. G., clerk, 40 years old; addicted to the alcohol habit. Stomach and bowels bad. Has had a rosacea for years. Intends to get married and is anxious to improve his looks. Treated with local alcohol injections twice a week. Marked improvement. Patient abruptly disappeared.

Case V.—R. S., tailor, aged 45; habits regular; suffers at times from dyspepsia. Has had acne rosacea for the last three years. Attributes it to exposure when crossing the Atlantic. The lesion was scattered over the face; parts of healthy skin between affected ones. Under local alcohol injections patient was cured. In this case a relapse occurred a half-year subsequent to the time he was discharged.

Case VI.—P. G., cigar-maker, aged 42. Suffers from rhinitis from time to time. Pretty nearly the whole face covered with a network of straight and tortuous dilated vessels. The local injections of alcohol cleared up the face very nicely. At the

time the patient was discharged, only a few blood-vessels were seen here and there on the nose and face; the attending hyperemia was entirely gone.

New York; 156 Clinton street.

"SHALL THE PHYSICIAN CARRY HIS OWN DRUG STOCK?"

A Reply to Dr. Benedict

By A. E. HUBBARD, M.D.

AN article having the above title, published in the A. M.-S. BULLETIN of February 8, has been brought to my notice, with the suggestion that I write a brief reply to it.

For the benefit of those who have not read the article, I may remark that the writer states that the discussion concerns the city physician, who experiences no difficulty in finding a pharmacy at his service, both day and night.

Permit me to point out that physicians, as a rule—and there are few exceptions to this rule—do not understand the dispensing and compounding of medicines, because they have not made a special study of pharmacy, which is a profession distinct from medicine. I am aware, of course, that a smattering of theoretical pharmacy is taught at the medical colleges. A pharmacist may read of, and learn, the symptoms of a certain disease, and still be unable to distinguish it from a similar ailment when he sees a person suffering from it. In like manner, a physician may read in his formulary, or journal, a prescription for a certain medicine, and yet be as incapable of compounding it as the pharmacist would be of making a diagnosis. Here is an obvious reason for the retention of medicine and pharmacy as separate professions: Each requires a distinct technical education.

I must now draw attention to the fact that physicians who dispense their own medicines are doing much toward lowering their profession, as they place themselves on a level with the many *quacks* who advertise, and who charge a certain price for treatment, medicine included. From competition with such persons our predecessors in ethical medicine have endeavored to save us, and it is our duty to follow their example in the practice of the most noble of all professions.

Further, the physician in large practice, even if he has the knowledge, has no time to compound his own medicines.

My opinion, therefore, from these few facts alone is that Dr. BENEDICT's query must be answered in the negative. But there is much more to be said against physicians usurping the duties of pharmacists.

I have already written that a majority of physicians do not know how to compound the medicines which they prescribe, or even the results of dispensing them. Indeed, in some cases of a very simple character they make very serious errors. For instance, I remember having received, when a pharmacist, the prescription given below.

If the physician who prescribed this had attempted to compound it he would to-day, in all probability, be an inmate of an institution for the blind.

Chromic Acid. 20 grn.
Alcohol. 2 dr.
Sig.: Use as directed.

Another example of how little the ordinary physician understands the dispensing of medicines is the following, somewhat common, prescription:

Morphia Sulph. 4 grn.
Ammon. Carb. 2 dr.
Aqua. 1 fl.oz.
Syr. Tolutan ad s. q. f. 4 oz.
Sig.: 1 dr. every 2 to 3 hours.

If the above were dispensed by the physician himself the probability is that he would omit to place a "shake well" label on the bottle, and, as a result, the patient would take very little morphine, until the last dose, when he would consume almost all of it.

There are, of course, innumerable other incidents similar to the above; but I need not multiply cases of this character. Two examples are quite sufficient. The truth is that the physician who, without a special education in pharmacy, dispenses his own medicines is placing himself in as false a position as is the pharmacist who acts as a physician by prescribing for his customers.

There are, as everybody knows, black-sheep pharmacists, just as there are black sheep in every other profession and business. But my own experience convinces me that druggists who charge 85 cents for an ounce of fluid extract of cascara sagrada are very rare indeed. In my estimation Dr. BENEDICT ought to have advertised the pharmacist who committed this outrage, by publishing his name. I ask, however, Is the doctor quite sure of his facts? I entirely disagree with the assertion that the average prescription can be filled for 20 cents and, yet, enable the pharmacist to make 100 per cent. profit. The idea of tablets and unmixed medicines being sold at 10 cents is out of the question, as a moment's consideration will show. A physician prescribes a certain drug of which he has read, and which he wishes to try upon a certain patient. The druggist is obliged to procure—say one dollar's worth, the least quantity he can buy of this preparation. He dispenses the prescription, which does not do what the physician expected, and the pharmacist never again hears of the drug. The bottle remains upon the shelf for years, and represents a loss of, at least, 75 cents. Most of our drugstores are plentifully supplied with this kind of practically dead stock.

To-day the average physician does not sit down and try to think of what drugs he wishes to prescribe, but of what proprietary medicine he has last read as advertised to give the most palatable and perfect combination for that particular case. In adopting this course the medical practitioner is taking away the legitimate business from the pharmacist, and he is also putting the patient to unnecessary expense. Prescriptions written upon this plan are, of course, costly; and, if Dr. BENEDICT's 100 per cent. were added as pharmacist's profit, the price would be, in many cases, 500 per cent higher

than it now is. The scientific practitioner writes prescriptions which often cost less than 35 cents, and seldom orders proprietary medicines, which can only be obtained at a higher price.

I may mention that I have experienced more than one case in which I have been required to compound prescriptions consisting of three fluid extracts in one R, the physician having specified that each one of them should be the preparation of a different house. To carry out this instruction an immense stock of drugs must be kept, some of which are seldom used. Another thing which the pharmacist has to contend with, is that physicians will persist in prescribing part of a bottle of certain medicines, such as syr. hydroiodic acid, bovine, granular effervescing salts, and other drugs which, when once opened, soon spoil. Much could be done by the physician to elevate pharmacy if he were to adhere to the good old U. S. P., U. S. D., or some similar standard work.

As to the statement that pharmacists charge for medicines according to the ignorance of the patient, I must decline to admit that such is the general custom. There is no doubt that disreputable druggists do exist—as do disreputable persons in every other occupation. For instance, within the last two months I have had two patients who had been given to understand by a physician (?) that they were suffering from venereal poisoning, and that it would take them from three to six months to recover. In both cases, upon questioning the patients, I learned that neither had had any symptoms, but, having been indiscreet, they had become alarmed, and had sought the services of a medical practitioner for fear they had contracted some disease. Upon examination I found that neither had any ailment, except the scare which he had received. One of them had some of the medicine remaining which had been given to him to use, and I requested him to bring it to me, so that I could examine it. Analysis proved that the powder, which had been given to be dissolved and used as a lotion, consisted of sodium bicarbonate; and the liquid, which was to be taken internally, tasted and looked like tr. nux. vom., highly diluted with water. I may say that, in my opinion, a great injustice would be done to the medical profession were it judged by the above examples; but the injustice would be no greater than that done to pharmacists if they were to be judged by the acts of a very small minority.

The Doctor writes that he makes a practice of furnishing his own medicines, with the exception of expensive and domestic remedies, because he has found by bitter experience that the pharmacal profession, as a rule, considers neither the business rights of the doctor, the safety of the patient, nor the principle of fair dealing. The above statement is quite severe, and his paper, as a whole, somewhat inconsistent. In the first place, let me ask, is not the doctor who furnishes his own medicines interfering with the business rights of the pharmacist? Then as to fair dealing, I believe

the pharmacal profession to be as honorable as the medical—or as any other profession.

The statement that a druggist who repeats a prescription without a fresh order, or compounds from what is evidently a previously filled prescription, has aided in a fraud which does not differ in principle from the obtaining of duplicate payments or the second use of revenue or postage stamp is, as I understand it, equal to saying that every pharmacist is a criminal. The cases are in no sense analogous. Custom, if nothing else, makes it necessary for the pharmacist to refill prescriptions, and he will continue to do so until physicians, as a body, rise against it. The physician's usual objection to this process is that he loses a fee for saying "Continue the medicine." The real question involved is, To whom does the prescription legally belong? When a patient receives a prescription it is with the idea that it is his, and that he has the right to use it as long as he wishes; he keeps it with that idea and not with the intention of defrauding the doctor. That is the way I have always looked at the question, and it has always been considered so till lately. If any person is really guilty of fraud (which I deny) it is the patient, who desires a second bottle of the medicine because he has received benefit from it, and who is not anxious to pay a second fee to the physician.

It may be useful to place some of Dr. BENEDICT's conflicting statements side by side, in order that the inconsistency of the article may be appreciated.

On page 184, the Doctor says:

"Under the present custom of charging according to the ignorance of the patient and without reference to the cost of the drug, the pharmacist must recognize that his trade is in direct opposition to economic law."

Page 184, first column:

"The pharmacal profession, as a whole, does not consider either the business rights of the doctor, the safety of the patient, or the principle of fair dealing with those who do not happen to know the value of what they purchase."

P. 184, second column:

"We have said also that the profession of pharmacy, as a whole, is guilty of gross disregard for the safety of those who purchase medicines."

The impression which Dr. BENEDICT's article makes upon my mind (and I worked for 12 years in a drugstore, prior to becoming a physician) is that he places pharmacists in an entirely false position, through judging the whole profession by a very small number of the worst specimens. The Doctor is, I believe, an A.M. Does he not remember that no *a particulari ad universale* argument is valid? Has

not his enthusiasm in the cause of twenty-cent prescriptions got the better of his logic? Is he unaware of the fact that drugs, like other commodities, vary in price according to their quality; and that an average price for prescriptions is, of course, impossible, until there is an average price for drugs?

Buffalo, N. Y.; 372 Franklin street.

A WORD ABOUT LUBRICANTS

By H. B. DUNHAM, Ph.G., M.D.

ALL of the serous, mucous, and synovial membranes of the body are constantly supplied with a lubricating fluid. If this fluid is absent or becomes deteriorated in lubricating power, friction of the parts is attended with pain, and more or less inflammation results. Injury, from toxins or otherwise, may be only sufficient to paralyze the secreting cells, so that friction and lack of drainage are necessary before serious inflammation is induced or prolonged. Inflamed membranes recover their integrity, if the proper lubricant is present, much earlier than otherwise, as the additional irritation of friction is avoided and opportunity for adequate drainage and rest is secured. If the opposing surfaces remain unlubricated and rough, nature comes to her endurance-limit of friction, and movement is made impossible by adhesion. The inflammation is cured, but the cure (by stricture) is in most cases as bad as the disease.

The choice of a lubricant by the physician is not such an insignificant matter as might be supposed. Oils and greases are *not* lubricants to watery tissues. A lubricant *per se* coheres to the surface lubricated, and the molecules of the lubricant, by rolling, one upon the other, reduce friction to a minimum. When water is interposed proper cohesion of the grease to the rubbing surfaces is prevented, and the lubricant serves only as a separating pabulum—a condition similar to that of loose ball-bearings filled with dust. Nature uses the proper lubricant on her membranes; it is not greasy; it is an aqueous solution of mucin, which is soothing and even nutritious to the superficial cells. Such a substance is produced by treating chondrin with superheated steam, thereby converting it into mucin, which, being subsequently boiled, the highest degree of lubricity for a substance of its consistence is attained. The name of "muco-lubricans" has been given to this substance, which is so slippery that it has also acquired the facetious appellation of "greased lightning." A more definite conception of its slipperiness, however, is conveyed by the statement of eminent genito-urinary surgeons that they can use sounds one or two sizes larger with muco-lubricans than with oil, and notice at the same time that less pain is experienced by the patient. Obstetricians and gynecologists find that this lubricant fulfills the most exacting conditions, as it is obtained in tubes in which it remains sterile while in constant use. That it is extremely desirable and applicable to the greatest variety of uses goes without saying, and the fact of its being the cheapest

lubricant that can be used does not detract from its virtues. When used in examinations, the nails, wrinkles, and pores of the hand are filled and covered by an absolutely antiseptic substance, so that danger of infection by the *accoucheur* is reduced to *nil*, the hand is protected in case of vaginitis or specific disease, and if there be pain it is not augmented by friction. It has been used with great success in dry labors, as it is more slippery than the natural secretions.

Although mineral oils furnish no nourishment for microbes, the danger is more subtle on that account, for the spores and germs buried in it do not advertise their presence by decomposition, but await the favorable conditions, when they are spread in a thin layer, over possibly an abraded surface, before multiplying. Being soluble in water, mucolubricans washes from the hands immediately, and neither towels, coated with germs and grease, nor stained underclothing is ever the result of its use. Instruments are cleaned and kept sterile much easier and more thoroughly when muco-lubricans is used.

Dr. ROBERT L. DICKINSON, of Brooklyn, says, with many other prominent gynecologists, "that of the many things which contribute to the pleasure and perfection of my practice, muco-lubricans stands at the head!" "If you mention my name in connection with muco-lubricans, use all superlatives; it is a pity that physicians do not know more about it."

Muco-lubricans has been used in inflammation of the mucous membranes, with the happiest results; urethritis, vaginitis, vulvitis, cystitis, hemorrhoids, erysipelas, etc. being most amenable to such treatment. Bichloride, carbolic acid, cocaine, ichthyol—in fact, anything soluble in water—is easily dissolved or, if an insoluble powder, is held in suspension by it. Besides medication, the two essentials—rest and drainage—are also secured; for, as it is watery, the fluids interchange by dialysis, and the antiseptic medicament, as it is absorbed, is replaced by soluble poisons of the inflammation. Several hundred cases of acute urethritis have been treated in this manner with the most gratifying results.

Haverhill, Mass.

Stearates of the Alkaloids.—The mixtures of alkaloids and oils, or fats, so frequently prescribed for external use, or in suppositories, would doubtless be much more efficacious, if the more common alkaloids could be dissolved in the oils or fats, which unfortunately cannot be done.

To avoid this inconvenience J. ZANARDI (*Boll. chim.-farm.*, 1896, No. 4) has prepared stearates—of morphine, atropine, and cocaine—which dissolve in fats and oils.

1. *Morphine stearate*, $C_{17}H_{19}NO_{31} \cdot C_{17}H_{35}COOH$, is obtained either by the direct action of stearic acid upon morphine or by double decomposition.

To prepare it by the first method, molecular pro-

portions of stearic acid (5.08) and morphine (5.72) are taken. The stearic acid is slowly heated in a glass retort, with 100 c.c. of absolute alcohol until dissolved, the morphine being then added in small portions. The warm solution is filtered, and on cooling will deposit morphine stearate. The mother-liquor, if evaporated, will deposit more crystals.

If an absolutely neutral morphine stearate is desired, double decomposition between sodium stearate and morphine hydrochlorate must be resorted to.

The sodium stearate is first prepared by heating 20 c.c. of normal soda solution (0.8 sodium hydrate) and 5.68 gme. of stearic acid together with 50 gme. of distilled water. To the solution thus obtained a solution of 7.51 gme. of morphine hydrochlorate in 100 gme. of water is added. The mixture is stirred, and the morphine stearate deposits in the form of a white, voluminous precipitate. The latter is thrown on a filter and washed with water until the washings are no longer rendered turbid by hydrochloric acid, or, after the addition of nitric acid, by silver nitrate. This purified stearate is then dried and crystallized from alcohol.

Morphine stearate thus obtained occurs in the form of white, crystalline, brilliant scales, of a greasy touch. It melts at 84° to 86° C., decomposing at 100° C., and chars at 150° C. It is almost insoluble in water, soluble in ether and in cold alcohol, and very freely so in hot alcohol; sparingly soluble in petroleum ether, benzine, chloroform, or oil of turpentine. At ordinary temperatures it dissolves in oils in the proportion of 1 : 100, and is also soluble in fats and in vaselin.

The presence of stearic acid in morphine stearate is detected by cupric sulphate, while morphine is shown by nitric acid or the other known reagents for it.

Morphine stearate contains 50.17 per cent. of morphine, and is employed in preparing morphinated oils, ointments, and suppositories.

2. *Atropine stearate*, $C_{17}H_{23}NO_3 \cdot C_{17}H_{35}COOH$, is obtained by the same processes as morphine stearate. It crystallizes in fine white, brilliant needles, greasy to the touch, melting at 120° C., and beginning to decompose at 170° C. It behaves toward solvents just like morphine stearate. It contains 50.43 per cent. of atropine.

Stearic acid is detected by floating the stearate on water and treating with a solution of cupric sulphate; atropine, by first dissolving it out by the aid of tartaric acid, and applying the usual reagents.

The 1 : 500 solution of stearate of atropine in almond oil is considered an excellent substitute for oil of hyoscyamus or oil of belladonna. The stearate is dissolved in the oil with the aid of gentle heat.

Extract of belladonna may be advantageously replaced in ointments and suppositories by atropine stearate.

3. *Cocaine stearate* is prepared in the same way as the foregoing stearates. Take 3.03 gme. of cocaine and 2.84 gme. of stearic acid. Its formula is $C_{17}H_{21}NO_4 \cdot C_{17}H_{35}COOH$. It crystallizes in white, brilliant needles, joined in bundles. It melts at about 90° C., and contains 51.63 per cent. of cocaine. Toward solvents it behaves similarly as the foregoing stearates. Stearic acid is detected as before, while the cocaine is shown, by first treating with tartaric acid, to liberate it from its combination, and then applying the usual reagents.

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WILLIAM HENRY PORTER, M.D.

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THE AMERICAN MEDICAL ASSOCIATION.—It seems to have been one grand glorious summer's day with the members of the American Medical Association. With genuine Southern hospitality the citizens of Atlanta opened their hearts and their homes to the members and their guests, dining them and wining them and barbecuing them to the full. The lay press with unanimity printed the supposed pictures of the leaders of the Association, even going so far as to give counterfeit presentments of some of the more modest and lesser lights. The eminent men were interviewed and lauded to the skies, and some of the less eminent men were called eminent. The State of New York was in part represented by supposed likenesses, and more than one stranger within the gates of Atlanta hailing from this benighted, unrepentant, and possibly unimportant State was characterized as eminent. For small favors we are duly grateful. We are thankful, indeed, that we have among us members of the profession who can afford to go to Atlanta, can be interviewed, and can be pictured—even though it is a difficult matter to recognize the likenesses. But then, when the members of the profession from this benighted State enter the Holy of Holies we pre-

sume they take on a semi-sanctified look, which codifies them sufficiently for the time to enable them to figure in the good graces of the mighty men who dominate the destinies of the great Association. When they return hither from their pilgrimage they may resume their ordinary look and return to their habits of consulting with so-called irregulars, even though common decency forbids them while at home from figuring in the public and medical press as indorsers of patent preparations. Great, indeed, is the Association, and mighty its deeds in the social and advertising line. As regards the supposedly chief aim of its existence, the propagation of scientific medicine, from the meager reports which have reached us we are not inclined to think that much of a startling nature was accomplished. True enough, a wealth of papers was presented to the different sections, and a minimum of time was given to the discussion of each—if, indeed, after the social events which fast followed one another, sensoriums were in a proper condition for discussion at all. When the journal of the Association, which practically has a monopoly of the papers and the discussions, reaches us we will be pleased to give our readers whatever kernels of knowledge can be secured. Those of our very distinguished contemporaries who have endeavored to give an abstract of the meeting appear to have cooked it up beforehand, so that in the interest of accuracy we prefer to await the appearance of the official report in the official organ.

To judge from the news transmitted to us by our special correspondent, which will be found in another column, much of the time of the general meetings was wasted in the attempt to oust from office the perennial secretary. For the space of thirty-four years this gentleman has ruled the Association so far as a secretary can, and at the meeting just closed a determined and very warlike effort was made to secure a younger and possibly a more progressive secretary, not so deeply imbued with the spirit of that bastard code which rules the Association in the open and is so flagrantly broken in secret. Had it not been for the resolute nature of the president, the surgeons in attendance at the meeting might have had their hands full in repairing broken bones, injured noses, and fractured skulls. All's well that ends well, however. We can credit the secretary with a determination not to be ousted, and the members of the Association who have had enough of him with having waged a plucky fight, doubtless to be renewed next year.

The Association failed to take any action on the

code question, which seems to be dying an inglorious death, the result of premature decay and imbecility. According to our correspondent "old-coders and no-coders and new-coders" mingled freely together, irrespective of that bastard figment of the imagination still alive in the minds of certain of the present rulers of the Association. The comfort is that these men cannot live forever, or, if they do, cannot remain in power forever; and when they decay, after the one or the other fashion, the spirit of liberality, of charity, of true science, will prevail, and through the code of conscience which guides every gentleman the various types of coders will live under one common roof of Liberality and of Humanity.

THE DISCOVERY OF A NEW SPECIALTY.—The knell of the all-around general practitioner has been sounded. A new specialty has been evolved. An enterprising practitioner in one of the large Eastern cities has concluded that it is about time obstetrics were being separated from gynecology, and further still from medicine, and announces the fact in a circular which he disseminates, at the same time calling attention to his peculiar fitness for the practice of this specialty. We append the circular without the name and the address, since the BULLETIN is not as yet prepared to indorse the new specialty, and we would suggest that votaries of other specialties still to come, as for instance the uvula and the tonsil and the coccyx, may be as modest when they prepare to enter the circular business:

"Dear Doctor —: The only department of medicine and surgery not practiced by any one in this city (so far as I know) as a pure specialty is that of obstetrics. Nearly all of our obstetricians are also gynecologists or are engaged in general practice. I have decided to devote myself exclusively to the practice of obstetrics, and shall be glad to attend any case you may intrust to my care upon such terms as we may agree. I will take charge of the patient solely for confinement, leaving you to make all subsequent visits; or, if you so desire, I will care for her during the puerperal period, and return her to you at its close. In regard for my fitness for the work I would refer you to my record at the _____ maternity hospital, where I was resident physician for nearly five years, and personally took charge of nearly five thousand confinement cases, or to Dr. _____, professor of obstetrics in the college of _____.

Yours truly, _____."

It is a pity this gentleman was not grounded in matters of good taste before he was ever graduated, or that the professor who is going to vouch for him did not tell him that such a circular, instead of obtaining practice for him, is likely to deter his colleagues from sending it to him. It is the professional man's honest work which tells in the end, and brings him a full measure of success, and not the

issuing of circulars, even though a professor is ready to back up the statements contained in them. Self-advertising and self-laudation and self-seeking are out of place in the profession of medicine, and the BULLETIN trusts that its well-meant words of advice will be accepted by the sender of the above circular before he has issued enough to cause him to lose, instead of gain, practice. There is an old German proverb which says, "*Eigenlob stinkt!*"

THE LITTLE DEVILS AND THE WILLOW.—An ethnologist, whose discoveries of the habits of early North American races have given him a world-wide reputation, is responsible for the statement that one of the most intelligent of these peoples, the Zunis of Arizona, believed in devils, infinitely small, who interfered with the healing of wounds. They also had a belief that the willow was a powerful charm against these malevolent spirits, and in dressing their wounds they used a decoction of its bark, with a suitable accompaniment, no doubt, of incantation and gesticulation. If tradition may be accepted, the results obtained by this treatment were far superior to those which followed the use of the song and dance without the preparation of salicylic acid.

Oh! happy Zunis, who discovered devils and their antidote at the same time! Or was there an intervening period before the virtue of the willow was known, in which the braves who were wounded in battle suffered agony, 10 per cent. of which was due to suppuration, and 90 per cent. to fear of the infinitely minute evil spirits?

This question must be referred to their historian, FRANK CUSHING; but no ethnologist is required to see that the civilized world is to-day in just that predicament. We have discovered our "little devils" in earth, in air, in water—as the sand which is by the seashore, innumerable. The catalogue of their names has already grown to a ponderous volume, until the microscopic species of the world bid fair to outnumber the macroscopic ones. We know their likes and dislikes, their births, marriages, divorces, and deaths. We even know something of their diseases, for a skilled bacteriologist can take a colony of microbes suffering from chronic gastritis, and, by a change in diet, temperature, and light, soon bring them back to the best of health.

Yes, we have discovered the "little devils." Of this there can be no doubt; and, thanks to sensational newspapers, the fear of them is gradually gaining control of the civilized world. The housewife, who for years looked complacently on molds as harmless, now grows hysterical over the thought of

germs in food. Apostles of higher cleanliness have long been willing to suffer thirst for hours rather than touch the drinking cup used by their fellow travelers; but, since we have photographs of several hundred kinds of bacteria, the fear of them has grown so strong that men and women have in some places changed a solemn religious ceremony which has existed for centuries into a near approach to a doll's tea-table in order to avoid the indirect contact of their friends' lips.

If we dry our children's faces with absorbent cotton to avoid contagion from the laundry, surely consistency directs us to take our own silver and china to a public dinner; for who dares to hope that an aseptic dish-towel waves in the kitchen of the best-kept tavern?

Not long since FROEBEL made a discovery which all educators look upon as a great advance in the methods of teaching; but already many a mother keeps her children from this new-found benefit to brain and body, lest through the Kindergarten the contagion, which she fears exists in the breath of every child except her own, reach her little one.

We have discovered our "little devils," legions of them; but our antidotes are few, and against some of the worst of these infinitesimally small evil spirits—some whose existence is only guessed at—we have not found a willow. Who knows any protection against the grip, or measles, or scarlet fever? Of what avail are the attempts at isolation alluded to? Are they willows or only music and gesticulation? Are the children who are kept away from other children as much as possible really shielded from infection to an extent which makes up for the spirit of timidity and distrust of their fellows which must surely follow such training? And in the mad search for the exciting causes of disease which has carried away the scientific world, has not the importance of the predisposing causes been forgotten? And how about the resistance to invasion which a vigorous body and a plucky disposition afford?

That which has been said of contagion in jest by physicians, too often has been seriously taken up by the public. Already Mrs. GRUNDY, after a hasty glance at the matter, is issuing her edicts. Germs are now fashionable, and theories of contagion have a recognized place in society. What the effect will be on the children of the "best families" only time can show. Meanwhile every physician owes it to the community in which he resides to insist that the real protection against disease comes from the observance of hygienic laws, and that sleep, good food, fresh air, and congenial em-

ployment (which for a child means out-of-door play with other children) are better safeguards than the most cunningly devised incantations.

TONGUE-DEPRESSORS IN DISPENSARIES.—The BULLETIN recommends the introduction of modern aseptic and antiseptic methods in those departments of dispensaries which are devoted to treating children's diseases.

Nearly every children's class in New York is conducted on the same lines. Into a small room are introduced from 20 to 40 sick children with their mothers, including generally one or more cases of diphtheria, or some of the other infectious diseases that happen to be in season.

After some considerable delay the cases are seen by the physician in attendance, and separated from one another or treated. Following an unvarying rule applicable to all sick children, the physician in charge examines all the throats without exception. It is interesting to investigate how this examination is performed in different clinics, with what instruments, and with what methods of disinfection.

The pocket or public clinic tongue-depressor, or spatula, is unfortunately made to do this work as a rule. The average method of practical antisepsis for such an instrument in the general medical and children's departments consists in holding it for a moment in running water, and then, after possibly dipping it into a weak solution of carbolic acid, applying it to the mouth of the next patient. The custom of boiling instruments in any but special surgical departments of the dispensaries is the exception rather than the rule. Most of the tongue-depressors on the market have grooves and angles in which dirt can easily collect, and belong to the class of obsolete surgical instruments which cannot be satisfactorily sterilized by any process except by prolonged boiling or dry heat.

To use such an instrument in examining the mouth and throat of a case of diphtheria or scarlet fever, and, later, the mouths of healthy children, is certainly worthy of the severest censure. Besides diphtheritic germs, more than twenty-five other forms of pathogenic bacteria are found in the mouths of healthy individuals (STERNBERG, "Bacteriology," p. 578), some of which, notably the diplococcus of pneumonia, especially thrive in saliva, and, if taken into the system of weak and sickly children, may produce their respective diseases.

There is only one safe method for throat examinations in a children's clinic. Since adequate disinfection of metallic instruments is too elaborate to be

practicable, some instrument must be used that can be thrown away after each case. This end can be accomplished by using pieces of the usual thin wooden splint, trimmed with a pocket knife. This should be used in a single case only, and then destroyed. This is safe, cheap, and effective, and is less painful to a rebellious child than a hard, curved metallic instrument. The ease and absolute safety of this method ought to recommend it to everyone who is examining the throats of many children.

In house practice, a spoon has such obvious advantages over a pocket tongue-depressor that most intelligent parents are apt to strenuously object to allowing a physician to introduce anything else into a child's mouth.

NO FUNDS FOR TUBERCULOSIS EXAMINATIONS.—The information comes from Albany that the recent Legislature has not allowed the appropriation of \$15,000, which was the estimate submitted by the State Board of Health, for conducting tuberculosis investigations. This negligence, or refusal, will debar the Board from continuing, this year, their examinations of herds where tuberculosis is suspected, and a summary check is placed upon this most important work. Whether this action or inaction has been due to opposition from the milk-producers or to the too evident tendency of our legislators this past winter to neglect the real needs of their constituents, in their eagerness to play the game of practical politics, our advices do not state. Anything which promises a reduction of the appalling mortality from tuberculosis, is of too vital interest to be set aside for the lack of so small a sum as that mentioned, but it is the history of such measures for public safety that they are constantly subjected to opposition, delays, and setbacks, until the public conscience has been educated to the necessary point. As it is, the failure to allow an appropriation of \$8,000 for the payment of claims for the destruction of glandered horses will probably evoke more interest in the farming districts because the danger of glanders is fully appreciated. In the campaign of education which is now going on it will not be long, we trust, before the risk incurred in the use of the milk or meat of tuberculous animals will be grasped generally by all classes of the people. When that day arrives there will be no trouble about appropriations.

A Sanitary Coffin.—A prominent Indiana firm has in contemplation the manufacture, on a large scale, of glass coffins that can be hermetically sealed. It is said that they can be made much cheaper than wooden ones.

SURGERY

OPHTHALMOLOGY, OTOTOLOGY, RHINOLOGY
LARYNGOLOGY, DERMATOLOGY, ORTHO-
PEDIC AND GENITO-URINARY SURGERY

Department Editor
SAMUEL LLOYD, M.D.

GENERAL

In charge of B. FARQUHAR CURTIS, M.D., WILLIAM B. COLEY, M.D., E. M. FOOTE, M.D.

Collateral or Uncrossed Hemiplegia.—LEDERHOSE
(*Archiv für klin. Chir.*, L, No. 2, p. 316)

The author's attention was drawn to this subject by an unfortunate experience with a case of collateral hemiplegia caused by intradural hemorrhage. He suspected that the hemorrhage was on the side opposite the paralysis, but trephined unsuccessfully. Autopsy revealed the true state of affairs.

A man 38 years old was assaulted and became unconscious, bleeding from both ears. The following day, however, he attended to his work, still complaining of headache and weakness. This increased, and on the ninth day he went to bed and consulted a physician. On the tenth day he became somnolent, and on the eleventh the right side of his body was paralyzed.

The author saw the patient on the twelfth day after the assault. Deep coma and stertorous respiration were observed, conjunctival reflexes absent, pupils neither contracted nor dilated, and reacted but faintly to light; the pulse was 80 and irregular. There was paralysis of the right side of the face, and very marked paralysis of the right extremities; anesthesia; tendon reflexes absent. Examination of the head and ears revealed absolutely no sign of an injury.

The author diagnosed laceration of the middle meningeal artery with a subsequent extradural hematoma, and decided to trephine on the opposite side; that is, on the left. He chose both areas recommended by KRÖNLEIN for the exposure of hematomas of the dura mater. There was no blood between the dura and bone, the dura itself was tense, did not pulsate, no underlying clot, and a fine puncture revealed the brain lying immediately beneath. He then suspected a hemorrhage or a pathological condition of the left hemisphere and did not proceed any further to find the cause of the cerebral pressure. Twenty-four hours later the patient died.

AUTOPSY.—No injury of the soft parts or bones of the cranium was revealed; no blood between the dura and bone. Under the right half of the dura a considerable collection of coagulated blood was present, generally spreading into the right cranial cavities; on the anterior half of the right hemisphere an isolated clot of blood, the size of a hen's egg, was found. In all, there were about 100 c.c. of blood. On the left side only a slightly discolored condition of the pia was found. In the substance of the brain small extravasations could be seen. The source of the right-sided hemorrhage could not be made out.

The hemorrhage was undoubtedly due to the previous assault. The extravasation must have been small in the first week and diffuse. The onset of the severe pressure symptoms was due most probably to a renewed profuse hemorrhage. Had this case been trephined on both sides, he would have undoubtedly recovered.

The author reviews the reported cases of collateral

hemiplegia as found in literature, and this would show that any lesion of the brain can exceptionally cause collateral hemiplegia. If in cases of intracranial hemorrhage, with hemiplegia, trephining is indicated and the collection of blood is not found on the side opposite to the paralysis, then it will be advisable to trephine on the paralyzed side as well.

He draws the following conclusions:

1. In all kinds of brain lesions with following hemiplegia, this may be exceptionally collateral or uncrossed.
2. Dilatation of the pupils or unilateral choked disk on the hemiplegic side may lead to the diagnosis of a collateral brain lesion or hemorrhage.

Contributions to the Surgery of the Liver and Gall-ducts (Abscesses of the Liver).—HERMES; Berlin (*Deutsche Zeits. f. Chir.*, XLI, No. 6)

The author reports four cases of abscess of the liver, which were admitted to the Moabit Hospital, Berlin. Two of these cases were reported by SONNENBURG in 1894. In addition he reports two cases of choledochus stones, and one case of enormous thickening of the walls of the gall-bladder, which necessitated the performance of cholecystectomy.

In the first case the abscess developed a few months after a perityphlitis. There is no doubt that a purulent process about the appendix gave rise to a secondary abscess of the right lobe of the liver. After the abscess healed, the patient refused to have the diseased appendix excised. Had the appendix been removed at the first attack, abscess of the liver would not have occurred. The case is remarkable because the abscess was single; as a rule we find multiple abscesses after perityphlitis, as a result of pyelophlebitis, which invariably cause death. Still, abscesses of the liver from perityphlitis are rare.

On examination a large number of Frankel's diplococci were found. They have also been found in perityphlitic pus.

In the second case, gall-stones caused the abscess of the liver. It is very likely that in this case the stones developed in the liver itself, and a very wide duct was present.

The author speaks of the danger of exploratory punctures, which may give rise to infection of the peritoneum. As far as the operation is concerned, if the liver is adherent to the abdominal walls, it is opened as any other abscess. If adhesions are absent, we must prevent infection of the peritoneal cavity by shutting it off by some method; in his own case iodoform tampons were used for 13 days till the adhesions were firm. If high temperature or rapid failing is present, such delay is injurious.

Turning to the two cases of stones of the ductus choledochus, the diagnosis was made without difficulty. The diagnosis was confirmed by the operation. The second case died.

In the first case the stones were broken by the fingers and pushed into the duodenum. This is the ideal operation, is attended by the least amount of danger, and can be performed most rapidly. This can be done if the stones are not too hard and if there is a certain resistance in the walls of the ductus choledochus; otherwise it is dangerous.

In other cases it will be necessary to open the gall-bladder and to endeavor to extract the stones from this point, or directly incise the choledochus and, after removal of the stones, suture the wound. This was done in the second case. Here the enormously dilated duct was looked upon as the gall-bladder; in fact, however, it was found post-mortem that the

gall-bladder was very small, and was hidden under the liver. In this complicated condition the whole wound-cavity was tamponed with iodoform gauze. After 36 hours, severe collapse set in, which was accounted for by a prolapse of intestine. Forty-eight hours after the operation the patient died. Peritonitis was absent; but the entire small intestines, and the ascending colon were filled with thin fluid blood. The patient died from a hemorrhagic diathesis, which is the most dreaded complication of icterus gravis.

The last case is interesting from a differential diagnostic standpoint and on account of the marked changes from which the gall-bladder suffered, caused by a chronic inflammatory process. The patient had a dilated stomach, and this, in connection with other symptoms, pointed to a tumor of the stomach; besides the patient had been operated upon for carcinoma of the uterus a year before, and this may have led to the suspicion of metastasis. Still the diagnosis of disease of the gall-bladder was made, on account of the location of the tumor and the attack of icterus and colic.

The gall-bladder was found enlarged, and its walls thickened to about 1 ctm. On microscopic examination malignancy was discarded. In all probability cholelithiasis was the cause of the chronic inflammation, although larger stones were not found, but some gall-gravel was present at the operation.

The Treatment of Intestinal Intussusception.—

RYDYGIER (*Deut. Zeitschr. f. Chir.*, XLII, No. 1, p. 101)

The author recommends the following operation: After the abdominal incision is made and the intussusception is found, a furrier's (Lembert) suture is placed around the neck of the invagination to prevent the subsequent escape of the invaginated border. This suture is very important. A longitudinal incision is now made about 5 ctm. from the neck of the invagination, on the convex border of the external intestinal sheath, long enough to permit pulling out the invaginated portion. Both of the layers of the invaginated part are cut through, beginning on the convex border up to the insertion of the mesentery (about two-thirds of its circumference). Through this new opening a large sound, or, better still, the index-finger of the left hand, is passed into the lumen to ascertain the permeability of the neck of the invagination, and to prevent the sutures which are to be placed from going too deep. Four sutures are introduced transversely to the long axis, which go through the entire thickness of both layers. The first is placed above, then one on each side, and the fourth below in such manner that it ligates the folded mesentery which has been pulled in by the invagination. Then the last portion of the invagination is cut away. Should the mesentery bleed, another ligature is applied. According to experience in his last case, the author recommends a furrier's suture including the whole thickness of the walls of the sheath in addition to the four sutures. The portion which is cut away is pulled out, or, if this is impossible, it is left in, hoping it may escape with the feces, or, if possible, it is pulled out through the anus.

Finally the incision in the invaginating portion is closed by Czerny sutures. Should it happen, as it did in some of the animal experiments, that this incision cannot be closed on account of swelling of the stump, the Heinecke-Mikulicz method, of suturing transversely, must be employed.

The advantages of this operation are: It is not

necessary to sacrifice too much intestine; the whole invaginating portion remains; ligation of the mesentery is done in one step; and suturing is completed in a very short time.

EYE AND EAR

In charge of WILLIAM OLIVER MOORE, M.D.

Disorganization of the Vitreous; Electrolysis; Improvement of Vision.—ABADIE (*Ann. d'Oculist.*, August, 1895)

ABADIE reports the case of a male in whose eyes the vitreous was disorganized for two years, the result of intraocular hemorrhages. There was only perception of light. A fine platinum-iridium needle was passed into the vitreous of the left eye and then connected with the positive pole of a continuous current, the negative pole being applied to the arm. A current of three or four milliamperes was passed for about five minutes. Improvement took place immediately, and the fundus, which could not be seen before, was now illuminated, and the patient able to count fingers and see the street numbers. Other patients have been treated in this way with good result.

Curettage in the Treatment of Trachoma.—

STROUSE (*The Med. News*, Jan. 11, 1896)

STROUSE summarizes the advantages of curettage as follows:

1. Its uncomplicated technique and the rapidity with which it can be performed.
2. Its comparative freedom from pain, enabling us to dispense with general anesthesia.
3. The minimum injury inflicted upon the conjunctival and subadjacent tissues.
4. The absence of inflammatory reaction after operation, permitting the patient to follow his usual occupation without discomfort. This is an important point in its favor in comparison with other operative procedures which confine the patient to his room for several days.
5. The simplicity of after-treatment, which is of importance, in view of the fact that the majority of trachoma cases occur in the lower walks of life.
6. The radical character of the operation, recurrences being rarely observed.

Muscular Insufficiencies.—SUFFA (*Jour. of Ophth., Otol., and Laryngol.*, VII, No. 4)

S. summarizes his experience as follows:

1. In all errors of refraction when the degree is greater than the muscular error, give lenses correcting refraction to be worn for some time before taking into account the muscular error.
2. Test all cases of myopia having esophoria, and all cases of hyperopia with marked esophoria under a mydriatic, as in either case the esophoria may be false. In hyperopia slightly over-correct for distant vision.
3. Strengthen by exercise all weak muscles that will respond and give relief to patients.
4. Correct all muscular errors that will not yield to exercise with prisms permanently, if relief is complete, and when not, until we are sure of the exact muscular state.
5. In latent hyperopia with esophoria, of whatever degree, always correct the refractive error either alone or combined with prisms favoring the muscle strain, continuing their use for some time after all hyperopia is manifest, in order to bring about a permanent muscular state before deciding to operate.

6. In low degrees when exercise and prismatic lenses fail to relieve, an operation should only be undertaken with the understanding that it is doubtful if relief will be given.

7. Operate only when milder measures have failed to relieve.

The Immediate and Remote Results of Cataract Extraction.—MARSHAL (*Royal Lond. Hosp. Repts.*, Vol. XIV, Part 1)

Number of cataract extractions from 1889 to 1893:

With iridectomy.....	1091
Without iridectomy.....	267
Preliminary iridectomy.....	161

Total number..... 1519

Results of extractions, per cent.:

	V. from 1/2 to 1/2	V. from 1/2 to 1/2	V. from 1/2 to counting fingers	V. Mov- ement of hands
With iridectomy.....	76.28	13.53	5.21	4.95
Without iridectomy.....	78.38	13.59	2.47	5.53
Preliminary iridectomy.....	73.20	14.09	6.69	5.99

Number and results of prolapse of iris:

	Number of Cases	V. 1/2 to 1/2	V. 1/2 to 1/2	V. 1/2 to fingers	V. Mov- ement of hands	Excisions
With iridectomy	0.87	66.66	16.66	—	16.16	—
Without iridectomy	13.86	72.97	10.81	2.70	5.41	8.10

Loss of vitreous after extraction:

With iridectomy.....	3.75 per cent.
Without iridectomy.....	2.99 " "
Preliminary iridectomy.....	10.81 " "

Glaucoma following extraction:

With iridectomy.....	0.42 per cent.
Without iridectomy.....	1.17 " "
Preliminary iridectomy.....	0.61 " "

Those cases in which suppuration occurred, had the lens extracted by the simple method and happened in 1.78 per cent. of the extractions.

Secondary cataract requiring needling was found in 26.79 per cent., and, as a result of this operation, glaucoma was noticed in 2.08 per cent., and suppuration in 1.02 per cent.

Practical conclusions: There is a complication that almost entirely belongs to one group of cases, and that is secondary prolapse of the iris after extraction without iridectomy; we may disregard it in the other group, for it occurs in less than 1 per cent.

Most of these cases occur within the first twelve hours, and the result is that an operation has to be undertaken. As a result of the prolapse of the iris the edges of the wound are kept apart, there is a direct communication from the conjunctival sac into the interior of the globe, allowing the entrance of septic material, and the iris is also nipped in the wound. Extraction with iridectomy offers the best result.

Illness from Boracic Acid.—The Medical Officer of Health for East Kent, England, after an exhaustive investigation of the subject, reports that the use of boracic acid in milk as a preservative was the cause of numerous cases of illness in families of his district.

SOCIETY MEETINGS

NEW YORK ACADEMY OF MEDICINE

SECTION ON ORTHOPEDIC SURGERY

April 17, 1896

NEWTON M. SHAFFER, M.D., Chairman

The Mechanics and Treatment of the Broken-down Foot.—Dr. ROBERT W. LOVETT, of Boston, presented a paper on this subject, freely illustrated by photographs of the feet and of the lower extremities in different positions. He said that if the whole body weight were borne on one foot, a movement took place which was of the nature of pronation. He had found the smoke tracings of the foot entirely unreliable, but by a method devised by Dr. H. J. HALL, of Boston, he had arrived at more accurate results. With the patient standing on a piece of plate-glass supported between two tables, photographs of the feet were taken from below. In this way it was ascertained that the chief points of pressure were under the heel and under the third metatarsal bone. The weight is plainly borne on the outer side of the foot. When the foot pronates, the toes remain practically stationary; the inner malleolus moves inward, downward, and backward, and the outer malleolus moves forward. With the help of Professor DWIGHT he had studied the anatomical relations of the weight-bearing foot. He had found that no lateral movement took place between the astragalus and the malleoli; the movement was chiefly between the astragalus and os calcis and the scaphoid and cuboid at the medio-tarsal articulation. The plane of the medio-tarsal joint slides backward and outward, and consequently a movement there which allows a lowering of the inner malleolus necessarily abducts the forward part of the foot. If the tibialis posticus becomes relaxed the forward end of the astragalus tips downward, and the foot abducts at the same time that it everts. After moving a little, the outer end of the scaphoid strikes against the cuboid, and the whole foot rolls inward—in fact, abduction and eversion are necessarily associated.

The speaker said that all the various methods of treating flat foot aimed at prevention of eversion of the sole. A properly constructed boot for use in the treatment of weak-foot should meet the following requirements: (1) The front part of the boot should be strongly abducted; (2) the front part opposite the medio-tarsal joint should be as wide as the weight-bearing foot; (3) the shank should offer real support to the arch of the foot; (4) the inner border of the shoe should be as straight as the condition of the great toe will allow, in order to give the latter freedom to support the inner border of the foot in its normal position. This boot had been used by 119 nurses, in most cases a ready-made boot being worn. Dr. LOVETT said that he had worked purely on the theory that the prevention of abduction was the prevention of pronation, or the prevention of trouble. Thirty per cent. of these nurses had had more or less trouble with the foot before he had seen them. If there was a great degree of pronation, the soles were made one-third of an inch thicker on the inner side, whether or not there was any complaint of discomfort on pronation. Ordinarily he used plates only as a temporary measure. In conclusion, the reader of the paper expressed the belief that pronation, with or without flattening of the arch, is the factor to study, and

that its prevention and cure are the prevention and cure of flat-foot, and that breaking-down of the foot which he called the "pronated foot."

Dr. DE FORREST WILLARD, of Philadelphia, said that, where the tendo-Achillis and the perineal muscles had become contracted, the chief difficulty had been in the relation of the calcaneum to the tibia and fibula. In these advanced cases he thought adduction alone would not correct the difficulty; in addition we must compel the weight to be transmitted down in a *straight line* to the weight-bearing portion of the foot. If the inner malleolus were allowed to sink, and the foot to bear the weight on the inner side, there would be more and more deformity. Due attention should also be paid to strengthening the tibial muscles.

Dr. JAMES K. YOUNG, of Philadelphia, said that the interesting experiments described in the paper served to explain certain features that he had long held, as a result of clinical experience, regarding the weight-bearing relations of the foot. He felt that the shoe advocated by the reader of the paper was an important prophylactic measure. The term "pronated foot" he considered a particularly good one, and he hoped it would take a permanent place in surgical literature.

Dr. E. G. BRACKETT, of Boston, spoke of the great scientific value of the studies described in the paper. In his opinion, there was another motion besides the inward one, already described. It was known that the weight comes down on the astragalus and os calcis in a downward and forward direction. The easiest way for the foot to yield is inward. This lowers the internal malleolus and the scaphoid, giving the apparent lowering of the arch, as already described. He thought there was also a yielding in a downward direction, and that this movement should not be overlooked. This downward motion the speaker illustrated by a photograph. Certain feet possess a marked amount of normal flexibility.

Dr. AUGUSTUS THORNDIKE, of Boston, said that probably all had experienced difficulty in having proper shoes made for these patients. These shoes are more quickly worn out on the outer border; and for that reason, when the next shoes are made, the shoemaker is apt to build up the shoe on one side so as to give it a sort of twist. The surgeon should be on the lookout for this error. The method of measuring the weight-bearing relations of the foot, as described in the paper, were most instructive, and he would advise every orthopedic surgeon to observe the foot-prints on the glass plate.

Dr. L. A. WEIGEL, of Rochester, said that many people seemed to be of the opinion that in these cases the arch of the foot is obliterated, whereas he had understood the reader of the paper to say that the arch was rolled over rather than flattened or broadened from side to side. It is not, therefore, a "flat-foot" in the strict sense of this term. The foot was a complex member, of which the weight-bearing function was only one part. The great problem in practice is to educate the shoemaker up to the point of making a proper anatomical shoe.

Dr. L. A. SAYRE said that he could appreciate everything that had been said in the paper; it was accurate and scientific, and founded on common sense. Facts had been presented, and consequently there was but little or nothing to discuss.

Dr. V. P. GIBNEY said that the severer grades of flat-foot could be successfully treated by Dr. WHITMAN's method, but the milder forms, such as had been described in the paper, were a source of trouble to orthopedic surgeons, chiefly, as had been said,

owing to the difficulty in getting the shoemaker to make proper shoes.

Dr. ROYAL WHITMAN said that he could agree with the reader in nearly all of the essentials that he had emphasized in his paper, both as to the mechanics of the foot and the importance of a proper shoe in the prevention and treatment of deformity—principles in treatment that he had followed and taught for years.

The ideal last should not only correspond to the shape of the normal foot, but it should be thicker on the inner side to allow room for the great toe; the front of the last should be flat. The ordinary shoe, in addition to its more serious defects, turned the toes up so that the foot was deprived of a normal support, and this greater pressure was brought upon the ball of the foot, with resulting discomfort and disability.

Dr. W. R. TOWNSEND said that the secret of success in the treatment of these cases was in fitting proper shoes. The criticism made by Dr. WHITMAN of the last was an important one, as he had already proved in practice.

Dr. B. FARQUHAR CURTIS thought that in the rolling out of the foot there would be a narrower arch in the middle of the foot than would ordinarily exist in the position of rest, because the outer border would be raised from the ground. Looking at the foot as a pillar or foundation, rather than a machine, it was easy to understand why it was that in some very greatly deformed feet there were no symptoms, simply because there was enough material to take the strain although it was not in the best position, whereas in others, very slightly misshapen, the symptoms are quite serious. In this connection the speaker referred to a certain patient in whom the first symptoms of broken-down foot had developed after an attack of gonorrheal rheumatism. It was obvious that the shape of his foot had not changed in a few weeks, but that the rheumatism had resulted in the weakening of the vitality of those structures so that they would not bear the strain as well as formerly.

Dr. SAMUEL KETCH: Flat-foot, as he had remarked some years ago in an article on "Club-foot" in the "Reference Handbook of the Medical Sciences," was by far the most frequent and most painful form of acquired club-foot. Anything that tended to prevent, ameliorate, or cure this distressing deformity was a step in advance, and we should be especially grateful to the author of the paper for calling attention to the matter of "prophylaxis" in these cases. He believed that, if the attention of the public could be directed, through the medical profession, to the importance of this subject, particularly the matter of wearing proper shoes in children and adolescents, there would be much less flat-foot observed in adult life. In this connection it was interesting to note that the shoe shown and recommended to-night had in its make-up a strong resemblance to the Indian moccasin, and it is a well-known fact that the Indian is rarely flat-footed.

Dr. HENRY LING TAYLOR said that it was a curious fact that many people assumed that they must, as a matter of course, suffer from painful feet, and also that shoemakers had made all sorts of corrections in shoes except the ones most needed. It was also remarkable that instructors in physical culture had quite generally overlooked the importance of attending to the feet. There was no doubt that correctly constructed shoes—which should be straight on the inner border, should have a narrow heel racket and broad, flat heels, and should be laced—would prevent a large majority of the painful affections of the feet, now so common.

Dr. L. W. HUBBARD said that much of the trouble with the foot could be explained by the erroneous training which children received as regards the manner of walking. If children, instead of being taught to "toe out," were instructed to walk with the toes straight forward, many of these feet would not break down.

Dr. R. H. SAYRE said that many of the severer cases seemed to be complicated by a synovitis of the tarsal joints, not necessarily of gonorrheal origin. The shoes that had been exhibited this evening seemed to him to be intended for people with very large great toes and very small other toes, and would be apt to cramp the latter. There was also very little use of having a correctly built shoe, and an improperly shaped stocking, which prevented the toes from expanding to fit the shoe.

Dr. JACOB TESCHNER said that, in the living subject with an abducted foot, it was rare to see the limb fully extended at the knee. It was not sufficient to strengthen the tibial muscles, but all the muscles of the lower extremity should receive attention. In treating cases of postural deformities by gymnastics he had employed Dr. SARGENT'S charts, and he had in this way discovered that the feet of some of the patients became shorter; in other words, the muscles had been developed to such an extent that the foot became shorter by a deepening of the arch. If the weight were practically borne by the foot, the heavier the weight the deeper would be the arch of the foot.

The Chairman, Dr. SHAFFER, called attention to the fact that flat-foot had a cause, and that in all but the extremely exceptional cases that cause would be found in a shortened gastrocnemius muscle. He felt extremely obliged to Dr. LOVETT for the detailed study of the conditions found in a broken-down foot, and many new thoughts were suggested by the careful analyses he had made of the conditions found, especially in the incipient cases. But Dr. LOVETT has been studying *effects*—not *causes*. He has been amplifying *results*, and has not given sufficient attention to the former factor in the production of the condition he so ably describes. Dr. SHAFFER stated that he never neglected an opportunity, especially with adolescents, to examine the ankle-joint. He had followed many ankles through the adolescent period to full adult growth. He had seen the non-deforming club-foot of beginning adolescence become the flat-foot of the completed adolescence, and he desired in this connection to call attention to the frequent association of abnormal muscular eye condition with labial curvature and true non-deforming club-foot, *i.e.*, the slightly shortened post-tibial muscle, with a more or less contracted plantar fascia and plantar muscles. He had seen several cases where a true equinovarus, after operation, with an insufficient elongated tendo-Achillis, had become a true flat-foot, and he wished to emphasize the fact that no one ever saw a case of flat-foot with an elongated gastrocnemius muscle. He further desired to call attention to the fact that the acute infectious diseases of childhood, diphtheria and scarlet fever especially, when followed by an arrest of development in the muscles of the calf, which are noticed in childhood, became a menace to the perfect mechanical relations of the ankle in adolescent life, and he believed that the future would demonstrate that lateral curvature and flat-foot were conditions which had their origin in early life, and which, passing unnoticed through the first two septinades, found expression in the rapid expansion of adolescent growth.

Dr. LOVETT, in closing the discussion, said that it must be evident that the behavior of the foot under weight-bearing is a complex matter. Evidently there were certain muscular conditions which markedly influenced this question. So far as his experiments had gone, he had been led to believe that the amount of pronation was the same, whether the foot was plantar flexed or dorsal flexed. He had looked very carefully for shortened gastrocnemius, and had found resistance to dorsal flexion in almost all of the bad cases, but he had not been able to satisfy himself that the shortened gastrocnemius was at all constantly associated with these broken-down feet. He would especially emphasize the statement that eversion, together with abduction, constituted what he termed pronation.

SECTION ON LARYNGOLOGY AND RHINOLOGY

Wednesday, April 22, 1896

JAMES E. NEWCOMB, M.D., Chairman

Presentation of Cases.—Dr. THOMAS J. HARRIS presented three cases. He said two of the cases were rare, and one, though common, was interesting from the treatment and the method employed. The first, a young woman, had noticed for the past two months a growth in the left side of the nose, a little hemorrhage, and had suffered from headache, nausea, and vomiting. The growth was pedunculated, attached to the septum, semi-solid, and not sensitive to touch. The second case was a man who had a tumor located on or near the vocal cords. The third case was one of tubercular laryngitis and pulmonary tuberculosis. The case had been under the care of a number of physicians, had consolidation at both apices, a temperature when first under observation of $101\frac{1}{2}^{\circ}$, and was unable to speak above a whisper. For three months he had been put on creosote internally, and intra-tracheal medication, with wonderful results. He was now able to work right along, temperature was normal, and the process in the lungs was checked. The ulcers in the trachea were entirely healed, appetite was good, he slept well, and was in a condition in which he could possibly be cured if he could be sent to the country.

In discussing the case with the tumor in the nostril, Dr. WRIGHT said he thought there was no doubt that the tumor was an angioma, which was the most common of any of the benign tumors of the septum.

The German writers recognized bleeding tumors of the nose, reporting twenty or more cases. Only nine or ten cases of true papillomata were recorded; nearly all were attached to the septum or to the floor of the nose.

Dr. MYLES wished to ask Dr. HARRIS if the man with the tumor in the larynx could phonate better now than he could before, for he thought the tumor was now too large to drop down between the cords.

Dr. HARRIS said the tumor did drop back between the cords, but the man phonated better when it was above.

Ulceration of Larynx.—Dr. WENDELL C. PHILLIPS presented a man, aged 26, veterinary doctor, who, 13 years ago, had an ulceration affecting the skin and free border of the cartilaginous septum. The scar-tissue gave every indication that the disease had been lupus. An operation was performed, with recovery, as far as the man knew. Three years ago he began to have hoarseness, with gradual loss of voice from that time on. There was now scar-tissue in the middle line of the nose. The voice had been lost for over a year. There was a

pultaceous mass in the region of the turbinated bone and located on the left side. It bled easily, was covered with secretion, and there was also partial stenosis from the right side, perhaps due to deformity of the septum. In the larynx there was a large ulceration on the right side above the vocal cords, with a great deal of infiltration upon both sides. There was no history of syphilis, but he could not free his mind of the suspicion, and put the patient on potassium iodide. The patient was now taking 120 grn. per day, and also had had frequent applications of 25-per-cent. ichthyol to the larynx. There had been much improvement. He was somewhat puzzled as to whether lupus and syphilis co-existed in this case.

Dr. WRIGHT thought there was no doubt it was specific, but it was strange that it had not attacked the bone.

Dr. MAYER said there was a great deal of thickening in the region of the arachnoid, so that it was difficult to get a good view. He thought it was specific in origin, and the induration would likely be resorbed if mercurial inunctions were added to the potassium-iodide treatment.

Dr. MYLES thought there were important points wanting in any diagnosis. He thought the extensive infiltration in the larynx was partly due to the patient attempting to use his voice.

The Chairman, Dr. NEWCOMB, said the case was one of interest, and he recalled a case which came to the Demilt for treatment and had been diagnosed and treated in several institutions as a case of lupus. It was put on specific treatment and improved at once. The physician became used to the rapid progress of syphilitic lesions and sometimes might be misled by those cases in which the disease runs a slow course. Dr. PHILLIPS said, though he thought the case was doubtless syphilitic, yet many of the symptoms were not those of tertiary syphilitic development.

New Remedies in the Treatment of Diseases of the Upper Air-passages.

—Dr. CARL E. MUNGER read the paper on this subject. He said that during the past year a number of so-called new remedies had been used in the Manhattan Eye and Ear Hospital in the treatment of nasal and laryngeal diseases, and this report was based on the record of clinical cases at Dr. CHAPPELL's clinic during the past year. Some of the drugs were but old ones dressed in new clothes, some had proven useful, and some had not.

Argentamin.—This was of much value in the treatment of catarrhal and purulent rhinitis, a 5- to 10-per-cent. solution being applied to the well-cleansed mucous membrane by the physician not oftener than every second day. A $\frac{1}{2}$ - to 2-per-cent. solution might be given the patient for daily use at home. The older silver salts seemed better in chronic laryngitis.

Acetanilid was used for insufflation on nasal wounds after operations. The pure powder proved a better dressing than when mixed with zinc stearate. The healing seemed more rapid, frontal headache and neuralgic pains following operations seemed less frequent; and no cyanosis, profuse sweating, cardiac depression, or unfavorable systemic effects were observed. Persistent hemorrhages were apt to follow the use of the drug upon septal wounds.

Tannigen was used in cases of hypertrophic rhinitis and chronic nasal pharyngitis. The physician can use an alcoholic solution of a dram to the ounce, while for the patients' use it was given from 10 grn. to 1 dr. to the ounce in a vehicle known at the hospital as "Oleum Hydrocarbon Compound." This was proposed by Dr. W. F. CHAPPELL and is a

mixture of unguentum zinci oxidi and benzoinol, a few drops of oleum gaultheriæ and oleum sassafras. The pure drug proved to be too strong; sometimes the solution was made weaker than the above, but it did not prove as satisfactory in its results as was hoped and seemed to act as a stimulant rather than an astringent.

Formalin in $\frac{1}{2}$ - to 2-per-cent. solution was an effective deodorizer and disinfectant and especially useful in syphilitic ulcerations. Dr. MUNGER narrated the history of two cases to show its usefulness for this purpose.

Creosote carbonate gave good results in acute follicular tonsillitis, even without other local or constitutional treatment. It relieved the patient quite rapidly and often cured the case in two or three days.

Pyrozone was used in a 3- and a 25-per-cent. solution. The 3-per-cent. solution was valuable as an antiseptic and hemostatic after operations, as a deodorizer, and to soften crusts and scabs previous to removal. The 25-per-cent. solution, called "caustic pyrozone," was used in follicular pharyngitis and tonsillitis with fair results. It seemed more useful in a few cases of pharyngitis lateralis and mycosis of the pharynx.

Lysol had not been much used. In $\frac{1}{2}$ - to 2-per-cent. solution it seemed a good antiseptic spray in cases where it was the custom to use carbolic-acid solutions. It frequently proved very irritating to the mucous membrane, and its use was discontinued.

Thiol had not proved useful as yet. Absence of staining properties and disagreeable odors made it more pleasant for intranasal use than ichthyol.

Ortho-mono-chlorphenol had been used extensively in atrophic and ulcerative rhinitis and eczema alæ nasi, and the secretion and crusts were lessened very promptly by its use, and excoriations healed kindly. A 25-per-cent. solution in glycerin was used, but this 25-per-cent. solution should be used by the physician only and made as frequently as necessity demands. The drug was useful in ulcerations on the septum or turbinated bones, and in atrophic rhinitis most brilliant results were obtained. It was also useful in chronic naso-pharyngitis where the post-nasal secretion was excessive. Thus far the use of the drug has been satisfactory and gratifying, but they had not yet used it in the larynx.

In discussing Dr. MUNGER's paper Dr. T. P. BERENS said he had used ortho-chlorphenol since 1884. He called attention to its anesthetic effect and said it numbed the base of the tongue when applied for irritation. He had found it useful in ethmoidal disease, where frequent application of the pure drug upon a very small tampon to polypoid or beginning polypoid degeneration gave good results.

Dr. GLEITSMANN said he had been using mono-chlorphenol, and had not found any anesthetic properties. He used it in a $2\frac{1}{2}$ -per-cent. solution. He said he wished again to draw attention to the anesthetic property of antipyrine. In acute tonsillitis he injected two to five drops of a 50-per-cent. solution, with the desired effect.

Dr. NEWCOMB said that a 5-per-cent. solution of guaiacol upon a pledget of cotton could be applied to the nose with complete anesthesia, and could be used in the ear when performing paracentesis of the drum membrane.

Dr. SMITH said he thought all the coal-tar series had an anesthetic effect.

Dr. MUNGER said he did not want them to think that they used ortho-chlorphenol in full strength, except in cases of ulcers, where it did good.

Primary and Secondary Pharyngeal Tuberculosis, from a Clinical Standpoint.—Dr. WALTER F. CHAPPELL read a paper with this title.

Opinion differed as to whether tuberculosis could be engrafted primarily upon a mucous membrane. Dr. CHAPPELL gave the history of three cases of tubercular pharyngitis, two of which were secondary and one primary.

In the first case the tuberculosis of the lungs was in an advanced stage. On the tenth day after the apparent infection of the pharynx yellow spots appeared and went on to ulceration, the patient dying six weeks after the pharynx became affected. Dr. CHAPPELL showed cuts illustrating the condition at different stages of the process.

The second case received various treatment without relief, and four weeks before death the pharynx became affected; first a thickening of the mucous membrane, formation of yellow spots, and then breaking down and the formation of ulcers.

Case 3 was a woman 19 years of age, who in 1895 came under treatment for post-nasal discharge and swelling of pharyngeal tonsil. The adenoid tissue was removed, but she afterward returned complaining of chills. New tissue, hard and resembling adenoids, was recognized, and the lateral folds of the pharynx, especially on the right side, appeared as thickened ridges, and a few days after the throat was sore and glands enlarged.

There were no symptoms of pulmonary affection; the patient had always been well, but, some months before, she had attended a sister who had tuberculosis, and after her patient died she occupied the same room and slept in the same bed the sister had used during her illness.

A specimen of the lymphoid tissue was sent to Dr. WRIGHT, who found tubercles in great numbers, and the diagnosis was made of miliary tuberculosis.

In discussing Dr. CHAPPELL's paper Dr. GLEITSMANN said he had seen but one case of primary pharyngeal tuberculosis, but he thought that if a tubercular infection was found in the pharynx, and no lesion anywhere else, it was proper to call it a case of primary tuberculosis of the pharynx, from a clinical standpoint at least. He would like to call attention to the fact that in treating cases of tubercular laryngitis or pharyngitis the physician might be led to think the ulcers had healed on account of the appearance of a seeming cicatrix, while investigation would show it to be only an accumulation of secretion with the active process beneath. He had also been struck with the fact that patients often had large ulcerations, yet complained of very little pain. He had a case in which three-fourths of the epiglottis was eaten away, yet the patient did not complain of pain. Eight years ago he had a case of primary pharyngeal tuberculosis, which was cured.

Dr. WRIGHT presented a microscopical specimen from the tissue sent to him by Dr. CHAPPELL. He said he was interested in the case, as it came in a line of research he was trying to carry out. It was a question whether the lymphoid tissue was infected previous to the removal of the adenoid, or whether it gained entrance through that channel, but the swelling that appeared a week after the operation would hardly be due to an infection at that time, yet might be only the inflammation from the operation, and the manifestations that came on four weeks later might be the first appearance of the tubercular process.

He had taken 12 tonsils from healthy children and put them into the abdomens of guinea-pigs, and none had developed tuberculosis. Five or six years ago MASSAEI had written to him concerning finding

tubercle bacilli in healthy noses and throats. Two or three years later STRAUSS, in Paris, had found tubercle bacilli in the noses and throats of many attendants in the hospital for phthisical patients. As it is pretty hard to find the bacilli, it is quite probable they existed in healthy noses and throats quite frequently. So far the evidence went to show that lymphoid or adenoid tissue could be the seat of infection as well as any other, but, considering the great number with pulmonary disease, it was a great wonder that more cases did not occur in the lymphoid tissues.

Dr. HANCE said he had never seen a case of primary pharyngeal tuberculosis. He had been making some further experiments upon the source of infection, and found that the dust removed from an area an inch and a half square on the sur-base of a room in which two brothers had died of tuberculosis gave tuberculosis to a guinea-pig in 30 days.

Dr. MAYER said he thought mucous membranes once diseased gave entrance to the tubercle bacilli and infection, and the case under consideration seemed to indicate this fact. Healthy mucous membrane repelled the bacillus, and thus gave us an idea how to prevent infection. He thought there were mild cases of lupus with subsequent tubercular infection.

Dr. SIMPSON said he was always impressed with the small number of cases of pharyngeal tuberculosis as compared with tuberculosis in other regions, and it seemed probable that it might be due to the fact that the pharynx was so often cleansed by gargles, cleansing the teeth, coughing, etc., and thus the bacilli became dislodged. The larynx could not be so thoroughly cleansed, and hence was more liable to become affected than the pharynx, and the liability was still greater with the lungs, for the same reason.

Dr. HARRIS recalled a case of Dr. H. P. DOUGLAS in which the pharynx remained in a stationary condition for a time, and then the lungs became affected. In this case also the right side of the pharynx was affected.

Dr. NEWCOMB said he thought that the lesson could be drawn that it was not safe to operate unless the patient could be removed from the source of infection.

Dr. CHAPPELL said the condition at the start was just like an ordinary cold. A small portion of tissue was removed, its place was taken by a larger amount, and the process extended.

ASSOCIATION OF AMERICAN PHYSICIANS

Washington April 30, and May 1 and 2, 1896

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SECOND DAY—MORNING SESSION

Two Varieties of Tubercle Bacillus.—Dr. THEOBALD SMITH, of Boston, presented a paper entitled: "Two Varieties of Tubercle Bacillus from Mammals." The two cultures were obtained respectively from a bull and a member of the bear family (*Nasua narica*) through guinea-pigs. The *Nasua* culture was presumably from the human subject, as the animal had been the household pet of a tuberculous patient who had since died. Well marked differences in morphology, in cultural characters, and in pathogenic activity were pointed out, raising the question whether the bacillus of the human disease was identical with that in the bovine family or racially different. Experiments with the two forms of bacillus showed that the bovine was much weaker than the human, and he had great difficulty in securing a culture from the bovine bacillus owing to its weakness. Another point that might throw some light on this question would be a determination of

the thermal death point of the two varieties, but he had not tested this. Observers had asserted that a temperature of 60°–70° C. would destroy the tubercle bacillus of cattle. Microscopically the *Nasua* bacillus differed materially from the bovine, the latter being short and straight while the former was more slender and curved. It was not a difference of more or less, but a difference of kind. Catarrh of the air-tubes did not precede tuberculosis in cattle, as it did in the human being. This question was of particular interest on account of the perturbation of the public mind with regard to the danger of spreading tuberculosis in children through infected milk.

Dr. VAUGHAN said he felt a particular gratification in this paper, for he had long held this view, and he was glad to find evidence that there were varieties of germs growing and increasing, and that they might even affect the tubercle bacillus. He did not see why this should ever have been denied, for it was a commonly accepted belief that variations in fruits and plants were caused by difference in environment. It was probable that we might sometimes find varieties of tubercle bacillus in vaccine so altered by its passage through animals as scarcely to be recognized. All experiments in the sterilization of milk should be made with tuberculous milk, for, when human tubercle bacilli were added to milk, the experiments became unreliable.

Dr. WM. PEPPER, of Philadelphia, said he had done a good deal of work on the lines laid down by VAUGHAN some time ago. The probability of this immense diversity in the character of the virulence of bacteria opened up a wide field for research. He thought this paper in the highest degree important as carrying the matter a step further. Why we should not expect to find a wide range in this matter he did not understand.

Dr. STERNBERG said that from his early work he had been convinced of the fact that various pathogenic bacteria were modified by their environment; and the fact that one bacteria would kill a guinea pig, while a similar one grown under different conditions would not, was no proof that they were different. Some years ago, when he attended a medical congress in Berlin, he expressed the belief that hospital gangrene was probably caused by some familiar bacillus somewhat altered from its environment, not by a specific bacillus. For this opinion he was hooted at, and told that it must be caused by a specific germ which had not yet been discovered. He wished to ask Dr. SMITH a couple of questions: (1) whether he had ever observed the branching form of the tubercle bacillus; and (2) whether the inoculation of human tubercle bacillus into cattle gave rise to the tubercle bacillus of cattle.

Dr. ABBOTT, of Philadelphia, said the variability of species was a most important topic, and light was gradually accumulating in support of this view. Bacteriologists would soon recognize bacteria not as species, but as groups. The diphtheria bacillus was described as a special germ, and others which closely resembled it but which did not kill guinea-pigs could not, it was claimed, be diphtheria bacilli. An intermediate form was described, a few years ago, which did not kill guinea-pigs, but caused similar results to diphtheria. When the animals which had been inoculated with this intermediate form were killed, cultures grown from them produced true diphtheria when injected into others.

In closing the discussion on his paper Dr. SMITH said he had been the first one to demonstrate the varieties of tubercle bacillus. Those who, like himself, had grown up with bacteriology had been under the influence of the Koch school, but the French

school was fortunately different, and was beginning to counteract the influence of the Köch school. In reply to Dr. STERNBERG's question in regard to the effect of the inoculation of human tubercle bacillus into cattle, he stated that the Bureau of Animal Industry had been carrying on some experiments in this line, but no effect was noticed. (The human tubercle bacillus was furnished by TRUDEAU.) In no case was the disease ever produced.

Case of Parasitic Chyluria.—Dr. F. P. HENRY, of Philadelphia, read a paper on "A Case of Parasitic Chyluria with Filariae Sanguinis Hominis Nocturnæ in the Blood and Urine." The case reported was an indigenous one, having never been out of the United States, and was the first of its kind observed in Philadelphia. The infection was probably acquired in South Carolina or Florida, and apparently at the age of 12 years. The patient was a female, 29 years old, in whom chyluria first manifested itself shortly after the delivery of a child at term. Filariae were absent from the milk of the mother and blood of the infant. The ophthalmoscopic appearances were negative. Treatment with quinine, thymol, methylene blue, and vaccination was ineffectual. When the chylous urine was allowed to settle it separated into two portions—a lower hemorrhagic zone and an upper milky zone. The blood was examined at night, and filariae were found, but they were not numerous. Leeches were applied, not for a corrective effect, but to search for filariae in the blood of the leech. Many dead ones were found, but few living ones, showing that, while the parasite might live in the leech, the latter did not serve as an intermediate stage in its development. In the treatment of the affection he gave thymol, on the recommendation of AUSTIN FLINT, but this, like everything else subsequently given, had no apparent influence. Methylene blue did not stain the filariae in the circulating blood, as FLINT had asserted. It did not hasten their death, nor stain them until they were dead. During the day the filariae were very scarce in the blood or altogether absent from it. The patient had no great amount of anemia. Dr. MANSON asserts that mosquitoes play the part of carriers of the filariae, taking up the parasites as they flock to the surface of the body at night. He thought that the fact that the mosquito could carry the parasite and deposit it in the Schuylkill river rendered it possible that the disease might become endemic in Philadelphia. Three varieties of the parasite had been discovered: *F. diurna*, *F. nocturna*, and *F. furstans*. The embryos were extremely tenacious of life, and ordinary cold did not destroy them. The patient had been taking methylene blue in maximum doses (2 grn. every 3 hours—16 grn. a day), but in this case the drug had proved absolutely inert. He thought it was fortunate that this was so, for if the adult filaria died in the trunk it formed abscesses, and, according to MANSON, in killing the parasite we were likely to kill the patient. Dr. HENRY presented several photo-micrographs of the filariae in the blood, and also several fresh microscopic slides, showing the living filariae in motion.

Dr. A. H. SMITH, of New York, related the history of a case occurring in the Presbyterian Hospital in New York, with recurring febrile attacks. The disease was acquired in South America. There was a history of chyluria and elephantiasis. There was an abscess in the calf of the leg, and several old deep cicatrices. Repeated examinations were made of the blood, and numerous parasites were found by day as well as by night, but they were all dead. The patient remained in the hospital several months and had a second febrile attack, but he

left the hospital in the same condition in which he entered. A puncture of the leg was made and filariae were found in the serum which exuded.

Dr. THEOBALD SMITH said that, in using methylene blue, it should be remembered that this agent was reducible, and this became decolorized when it came into contact with living tissue. Dead matter, such as feces, would be colored by it, while living tissue would remain unstained.

Dr. S. J. MELTZER, of New York, asked why an abscess should be formed when the parasite died.

Dr. HENRY, in closing the discussion, said he believed that destruction of the adult filaria would result in abscesses, because this had been observed. The adult filaria had been removed from abscesses in various parts of the extremities, six or more having been removed from a supposed lymphatic abscess. The adult filaria was about three inches long, visible to the naked eye, and looked like an animated hair. If it died it became decomposed and thus set up abscesses. As to the case reported by Dr. SMITH, in which filaria were found at all hours of the day or night, that would belong to the variety of filaria furstans which was found on the west coast of Africa. He could not account for the fact that they were always dead when examined, unless it was that they were killed in the manipulation of the slides. The occurrence of fever with elephantiasis rendered this case more interesting. As to the reported cases of malarial orchitis, he thought these were probably of parasitic origin. In reply to Dr. THEOBALD SMITH's criticism, he stated that he had not used methylene blue for its staining properties, but to see if it had any deleterious effect on the parasite. He thought that a host who harbored such a guest as a filaria should treat it kindly, otherwise the female might abort, and the products of such abortion would be unable to pass through the lymphatic glands, and so would give rise to chyluria and other symptoms. The adult form was innocuous.

Diagnosis and Treatment of Dilatation of the Stomach.—Dr. WM. PEPPER, of Philadelphia, read the paper. Dr. PEPPER advocates an abandonment of the term "mechanical" dilatation. In some cases of simple atonic dilatation there were indications of extraordinary improvements following operative interference for stenosis, when no actual operation was performed. There was a large series of operations for stenosis in which these striking post-operative improvements were noticed. The ultimate diagnosis of atonic dilatation of the stomach was based upon a loss of power in that organ to impel its contents into the intestines. The existence of this condition might sometimes be suspected from the general symptoms of the patient. The patient became emaciated, almost cadaverous, the skin was dry and harsh, circulatory sluggishness in the extremities, an abnormal distention of the abdomen, and the peristaltic waves might be irregular, reverse or in both directions, causing colic. Sometimes it was possible to feel the lower margin of the stomach in its displaced position. Determination of the location of the stomach by means of inflation did not, however, warrant the belief that the stomach normally occupied a position so low as some observers had asserted. Auscultatory percussion furnished an extremely reliable means of diagnosis. One of the best methods of dilating the stomach for these examinations was with bicarbonate of soda and tartaric acid, but inflation with atmospheric air was still better. Effervescent gas was unreliable because it could not be regulated in cases of ulcer of the stomach, etc. Inflation of atmospheric air had

the objection that it required the passage of a stomach tube. This furnished the only satisfactory means of determining the position and size of the stomach. For determining the motor activity of the stomach, or the sufficiency of its walls, several methods had been used. The administration of salol had been recommended. Another method was by the injection of a measured quantity of oil into the stomach, and at the end of two hours removing and measuring all that remained. All traces of all kinds of food disappeared from the stomach in seven hours in normal stomachs. All other methods of measuring the motor activity of the stomach by means of instruments were cumbersome and useless. BOAS asserts that the presence of lactic acid in the stomach after a test meal was indicative of cancer of that organ, but Dr. PEPPER stated that it had been known to be absent in cases of carcinoma, and, conversely, it had been detected when there was no cancer present.

Dr. HENRY, of Philadelphia, said the reference to BOAS's lactic-acid test for cancer of the stomach led him to mention a method of diagnosis which he had found of great value. In late cancer of the stomach there was a great simulation of pernicious anemia, so that the diagnosis lay between those two diseases, and if there was a method of excluding one the diagnosis could be made with great certainty. This was by counting the red blood-corpuscles. He had never seen a case of pernicious anemia persist to a fatal termination without the number of red blood-corpuscles falling below 1,000,000 per c.mm., but he had never seen a case of carcinoma of the stomach go to a fatal issue with any such decrease in the number of red blood-corpuscles. He had examined the blood of a large number of cases of cancer of the stomach, and had found, within a very short time before death, between 2,000,000 and 3,000,000 per c.mm., and had immediately excluded pernicious anemia on that ground.

Dr. S. J. MELTZER, of New York, said that Dr. PEPPER had stated incidentally that the sound which accompanied the entrance of food into the stomach had been of no value in the diagnosis of dilatation of the stomach. About 12 or 13 years ago, when he (MELTZER) had first described these sounds, he stated that they could be heard normally on the left side, but when the stomach was dilated the area over which these sounds were heard was much enlarged.

The President said, apropos of the diagnosis between carcinoma and pernicious anemia, that there was another point which it was important to know. He had now three patients in whom he had made the diagnosis between pernicious anemia and carcinoma in this way. In doubtful cases he found that in carcinoma the blood-cells were absolutely normal in shape, while in pernicious anemia he did not expect to find a case in which they were not abnormal—macrocytes, microcytes, and poikilocytes.

A Case of Leucocythemia, by Dr. J. H. MUSSEY, of Philadelphia, was the next paper read. The author gave a detailed clinical history of this case, and of the post-mortem appearances. The blood was examined several times, and the proportion of white cells to red was found to be 1 to 4. There was a large number of leucocytes. There were large mononuclear cells whose nuclei stained well, and large, irregular cells with nuclei which stained poorly. These cells were three or four times larger than the red blood-corpuscles. There were no peculiar changes in the bone marrow. The leucocythemia appeared to be of myelogenous and splenic origin.

Dr. W. H. WELCH, of Baltimore, asked whether

the very large cells found in the lymphatic glands might not have been bone-marrow cells which were occasionally found in the blood, and occurred in leucocythemia. These were not identical with Ehrlich's myelocytes. Budding leucocytes very much resembled polynuclear bone-marrow cells, and it occurred to him that the large cells found in the lymphatic glands might have been bone-marrow cells with budding nuclei.

Dr. MUSSEY replied that the cells were new to him and he was glad to have Dr. WELCH's views on the subject.

Treatment of Anemias.—Dr. LYMAN read for Dr. I. N. DANFORTH, of Chicago, the following paper: "Notes on the Treatment of Pernicious and Other Forms of Essential Anemia." Peptonate and albuminate of iron were used, but without benefit. Iron by hydrogen was equally unsuccessful, though it was well borne. (It was interesting to know in this connection that the iron found in the liver was not derived from the chalybeate tonics.) Horsford's acid phosphate caused a remarkable and rapid gain, but the improvement was only temporary. The hypophosphites were injurious. The treatment with intestinal antiseptics, advocated by HUNTER, did no good, though beta-naphthol and salol relieved some of the symptoms. Alcoholic stimulants (distilled liquors) were absolutely useless, except in attacks of fainting. They were followed by headache and other distressing symptoms, and the patients took them very unwillingly. Malt liquors—beer, malt, and ale—when well borne, had good effects and retarded the progress of the disease. Arsenic had attracted widespread attention in the treatment of this disease, but the author had not seen any permanent cure from its administration. It was given in the form of Fowler's solution, but the large doses advocated could not be taken, for painful symptoms followed the administration of more than 5 drops, which was the largest dose used. Arsenical waters were well borne and seemed to have some temporary good results. Bone-marrow was found to be the most satisfactory treatment. The author first adopted FRAZER's plan of giving the yellow marrow in capsules, on bread, etc., and in a week a decided improvement was noted. He afterward used a glycerin extract of the red marrow, at first giving it alone and afterward giving Fowler's solution and acid phosphate with it. Under this plan of treatment the hemoglobin increased from 30 to 80 per cent. The bone-marrow was afterward stopped because the patient got tired of it, but a relapse occurred, which improved when the bone-marrow was resumed. A second relapse followed the withdrawal of the bone-marrow, but the disease did not yield on a return to the bone-marrow treatment, and the patient died. He believed that the patient's life was prolonged 18 months by the use of bone-marrow, though she was getting arsenic and concentrated food at the same time. Glycerin extract of the red marrow seemed to be best adapted for general use and appeared to have decided hemagenetic properties.

Dr. A. H. SMITH, of New York, said he was reminded of a case in which the diagnosis lay between pernicious anemia and carcinoma. No tumor could be found. An examination of the blood showed no deformities. The degree of anemia was very great, and the number of red cells was reduced below 1,000,000 per c.mm. An examination of the stomach contents showed an absence of hydrochloric acid, and at one time lactic acid was found, so there was much looking in both directions. Iron and arsenic were finally abandoned under the

belief that the case was not one of pernicious anemia, and shortly afterward an amazing improvement took place, though she had seemed to be on the point of death. She left the hospital; and if she had then passed from under observation the case might have been considered one of pernicious anemia, but she returned to her home in North Carolina and died, and at the post-mortem carcinoma of the stomach was found.

Dr. JANEWAY said that those who had seen cases of the different forms of anemia knew how futile treatment was in the graver form. He had seen a marked temporary improvement following treatment, but he had yet to see a case where the result was permanent. He related a case in which a marked improvement was brought about, and persisted until the present time, from the use of bone-marrow. The disease was not always promptly recognized, because often there was a failure to examine the blood in cases with enlarged spleens, because, with leucemia, the patients did not show enough paleness to lead their physicians to think they were dealing with leucemia. It was rare to see a leucemic patient who was extremely pale. He knew of one case where an apparent cure was made by the use of arsenic. Two years had gone by without a relapse, but he did not know what the terminal result would be, for usually there was a temporary improvement and then death occurred.

Dr. F. P. HENRY, of Philadelphia, said he had called attention a year ago to the fact that pallor was not present in leucemia. Indeed, physicians spoke of leucemic plethora. He thought at least two years should pass without a relapse before reporting the case cured. Cases might be cured by the use of arsenic pushed to the point of tolerance, but it must be so pushed in order to get any results. Under this plan of treatment he had cured a gentleman in Philadelphia, and he was now an active business man. The success in Dr. JANEWAY's case was due, he thought, to the arsenic.

Dr. J. P. C. GRIFFITH, of Philadelphia, said that no one had yet been able to reach the real cause of the trouble, which was the destruction of red blood-corpuscles going on in the portal circulation. No good results could, therefore, follow the administration of iron. What was wanted was more red blood-corpuscles. Bone-marrow might do that, but when this stimulation to the formation of red blood-corpuscles was withdrawn, relapses occurred. This also accounts for the action of arsenic. He thought the use of arsenic could not permanently cure the disease; and where this result followed its administration the explanation was that for some reason the destruction of red blood-corpuscles had ceased. Pernicious anemia was an idiopathic disease, and when it followed tapeworms and other diseases it was probable that poison had been absorbed. A case had occurred in his practice with general anasarca, dyspnea, and an anemic heart murmur. The patient was put on ascending doses of arsenic and took 60 drops of Fowler's solution daily for some time, but this finally brought on a peculiar case of neuritis.

Dr. H. A. HARE, of Philadelphia, had had two patients with pernicious anemia, one of whom improved on ascending doses of arsenic, while the other went to the bad and died in a few weeks. He had now in the Jefferson Hospital a boy who had had three attacks in which it was thought that he would die. He was put on large doses of arsenic—17 drops of Fowler's solution 3 times a day—and it was thought that a permanent cure had been found. When the point of tolerance was reached the stom-

ach rebelled and another attack came on. The arsenic was stopped and no treatment given, but the improvement continued. Until more was known of the pathology of the disease he thought it was useless to hope for any result from treatment.

Bromo-intoxication.—Dr. D. WEIR MITCHELL, of Philadelphia, presented a paper upon "Certain Effects of Bromic Intoxication." In this paper the author took the ground that the use of bromides, especially in excess, often produced very peculiar results, and the symptoms for the alleviation of which the drug was taken often became much worse under its use, especially during menstruation. It caused delusions, suicidal tendencies, etc. Irritability of temper was a frequent result of the use of bromides, but the more serious effects were rarer. It also had some effect on the urine. In chronic cardiac asthenia the symptoms grew worse under the use of bromides. A tendency to ptosis was a common sequence. He had also seen it produce paresis and an inability to walk, sometimes more marked on one side of the body than the other, simulating hemiplegia. In this it resembled the well-known effects of alcohol where it was noticed that a man appeared to be more drunk on one side than on the other. The left side was the one more commonly affected. The use of bromides also led to failure of memory, going on to partial paresis and involuntary movements of the bowels and rectum. These extreme cases were rarely seen, but the reckless use of bromides by laymen might cause them. He recalled a case of Jacksonian epilepsy where 60 grn. of bromide of potassium a day were given. The child's father was a druggist, and he argued that if 60 grn. kept the disease in check, two or three times that amount ought to cure it. The child sank in a heap after taking the larger dose and became an imbecile. Improvement took place when the bromide was withdrawn, and her mind became sharper. He related the cases of two other children in the hospital who were taking bromide of lithium, and one lost all memory of words, while the other lost all idea of time. He also mentioned the case of a lady who had been taking 60 grn. of bromide a day for four years. Suicidal tendencies and melancholia occurred at the menstrual epochs, which disappeared when the bromides were withdrawn, and reappeared when she resumed their use a few years afterward. He strongly inveighed against "deluging" patients with bromides, especially in cases of epilepsy.

Dr. JANEWAY said he was glad to have attention called to this subject. He had seen a number of deaths which could only be explained by the inordinate use of bromides. These patients would sink into a condition of apathy from which they could not be roused. He himself had seen three of these autopsies, and he had knowledge of five cases in which the excessive use of bromide had produced fatal results. Another drug in the same category was bromo-soda, which drunkards made use of when they wanted to reform, and it was just in those cases of cardiac depression that the bromides were most dangerous. The same depressing effects were noticed from the use of the drug in asthenic diseases such as typhoid, and in these diseases conditions were frequently noticed which were attributed to the disease, but were really due to the use of bromides, chloral, etc. Even moderate doses might produce these results in susceptible persons.

Dr. H. A. HARE said that all the potassium salts produced a very depressing effect on the heart and respiration. Potassium itself was one of the most depressing drugs we had; and he recalled a case where the patient was thrown into a state of

collapse from the use of citrate of potassium, and it was not until the potassium was stopped that recovery took place. It was a question whether the depressing effects attributed to bromide of potassium were not due as much to the potassium base as to the bromine. Of course where the soda or lithium salts were used, as in some of Dr. MITCHELL's cases, the bad effects could only be attributed to the bromine. He did not think the profession in general recognized the fact that they should get these depressing effects from the potassium salts, and that they should use sodium instead of potassium. He had found the lithium salts more irritating to the stomach than either the sodium or potassium. Caffeine, he thought, was just as dangerous, and its effects were known as "caffeine craziness." He knew of several cases where 15 grn. of citrate of caffeine every three or four hours had produced suicidal tendencies, and one patient did actually commit suicide by jumping out of the window.

Dr. LYMAN, of Chicago, said there were certain points which it would be interesting to review in this connection, and one was the question of heredity. Where there was any hereditary predisposition to insanity or the arthritic diathesis the bromides might develop this condition. In one of Dr. MITCHELL's cases arthritis was present. Dr. HARE's remarks about potassium should also be borne in mind. Weakness of the heart was one of the conditions which led to this mental depression. He had himself discontinued the use of potassium for several years, his preference being for sodium.

Dr. C. L. DANA, of New York, did not think that potassium had anything to do with the depressing effects caused by bromide of potassium, as he had never been able to see much difference in the amount of depression whether patients got potassium or sodium. This was a sort of bugaboo which ought to be banished. He agreed with Dr. MITCHELL as to the pernicious mental effects of bromides. But there was another side which should not be overlooked, and he thought Dr. MITCHELL would agree that while they had a depressing effect in large doses, in small doses of three or four grains they exercised a beneficial effect. He had never seen a fatal case, except one which was treated by a homeopathic physician.

Dr. MITCHELL, in closing the discussion, said that with reference to Dr. LYMAN's remarks it would have been well to have obtained the previous history of his patients, but he was not engaged in a study of epilepsy, but of bromides. Replying to Dr. HARE, he stated that he had never seen any more depressing effects from potassium salts than from others, but he always used lithium when giving it alone, because it contained more bromine than any other and was the best thing to use at night. He thought some attention should be given to this subject by teachers of therapeutics, for he never went to a consultation without finding that the attending physician had been deluging the patient with bromides.

Idiopathic Osteopsathyrosis in Infancy and Childhood was the title of a paper by Dr. J. P. CROZIER GRIFFITH, of Philadelphia. Osteopsathyrosis, or fragilitas ossium, is a comparatively rare condition at any time of life, or dependent upon any cause. It is far most frequent in advanced years, and is then due to an atrophy of the osseous structure. At other periods of life it may be symptomatic of other affections, such especially as certain nervous diseases, osteomalacia, rickets, etc.

There are still a number of cases remaining which

may be called idiopathic, since they can be traced to no recognizable cause and as most of them are not associated with any atrophy or other visible pathological alteration of the bone. Some of these occur in youth and adult life, but the writer confines himself to those developed in early years and reports a case in point.

This was a boy who had several fractures, occurring at or soon after birth, and who, up to the age of two years, had suffered in all seventeen or eighteen fractures. The slightest cause was sufficient to produce them, and it was necessary to keep the child upon a stretcher, so great was the fragility of the bones. The general health of the subject was good, and there was no constitutional affection in him or in his parents which accounted for the condition.

The writer then reviewed the cases of unusual fragility in infancy and childhood of an idiopathic nature which have been reported in medical literature, and discussed the etiology, pathology, diagnosis, and treatment, so far as it is possible, with the little light which the reports shed upon the subject. The cause is, as the title indicates, unknown. With regard to pathology and diagnosis, the writer discusses briefly the relation of the disease to rickets, to osteomalacia, and to imperfect osseous development, the latter as especially exemplified in some of the reported instances of multiple intra-uterine fractures. The disease may, and probably does, bear a certain relation to these pathological conditions, but it is distinct from them. Certainly, in his opinion, it is not at all of a rickety nature, although it may sometimes be combined with rickets.

There seemed to be no good reason for attributing this disease to syphilis or rickets. This was borne out by the fact that these diseases were common, while softening of the bones was rare. Again, osteopsathyrosis sometimes came on after the active stage of rickets had passed, and, again, it occurred before the rickets manifested itself. Fractures were more common in the long bones of the upper and lower extremities and the clavicle. The lower extremities suffered more frequently, on account of the greater weight put upon them. It was possible that there might also have been intra-uterine fractures of the pelvis. The prognosis was unfavorable, but in a few cases the bones became hard and the child might outgrow the tendency. The treatment was simply to take care of the general health, and hope that time would effect a cure.

Dr. LYMAN, of Chicago, was reminded of a similar case occurring in a young man, 25 years of age, of healthy parentage, and with no symptoms of rickets. He had had 33 fractures in all, but for two years no new fractures had occurred, so it seemed that the tendency was being outgrown. One tibia was translucent. His seemed to be a mixed case of osteomalacia. There was great deformity, and great retardation of growth. The health was good, and reason perfect. The sexual organs were well developed, but there was a complete absence of sexual feeling.

Dr. J. H. MUSSEY, of Philadelphia, inquired as to the quantity of urine passed in 24 hours. He mentioned a case of rickets in which the occurrence of phosphoruria was very marked. The case was observed over a long period of time, and was connected with a bone lesion.

Dr. A. H. SMITH, of New York, stated that he had made an autopsy on a patient 111 years old in whom the ribs were so soft that they could easily be cut with scissors. There were no fractures, however.

Dr. GRIFFITH said, in reply to an inquiry by Dr.

HARE, that the child had a fracture on the second day and that an anesthetic was given to facilitate its reduction. The family history was unusually good for several generations, having no history of syphilis, rickets, or other constitutional disease. The case mentioned by Dr. SMITH was probably one of senile atrophy of the bones. In reply to Dr. MUSSER he stated that there were only two cases in which phosphoruria was found. He had never examined the urine in the case mentioned because of the difficulty of collecting it.

Gouty and Rheumatic Arthritis Compared.—

The last paper read during the morning session was entitled "Painful Points in Gouty Compared with Rheumatic Arthritis," by Dr. W. H. THOMSON, of New York. The paper gave the statistics of the location of the pain in cases of gout and rheumatism occurring in Roosevelt Hospital. This localization was of diagnostic value in gouty arthritis. Thus, in all diarthritic joints, the painful points in gouty inflammation were, with certain specific exceptions, on the condyles. In acute rheumatic arthritis, on the other hand, the pain was more diffused, but distinctly pronounced along the tendons, and at their attachments, but not on the condyles. In rheumatoid arthritis there was no uniformity in the localization or tenderness on pressure. In gout the periosteum was chiefly affected, and in rheumatism the substance of the bone.

(End of morning session.)

CORRESPONDENCE

(From the BULLETIN'S Special Correspondents)

ATLANTA LETTER

FORTY-SEVENTH ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION

This year the meeting of the American Medical Association was held still further south than last year, when its camp was pitched in Baltimore.

In an address delivered within the past year on the "Life and Times of Marion Simms," his son-in-law boasted that, as the great pioneer in gynecological surgery and fervent partisan of the "Lost Cause" had prophesied, within the short space of thirty years the devastated, impoverished South had, phoenix-like, not only risen from her ashes and promised to soon assert her commercial supremacy, but to-day she held the reins of government at Washington. But if the South is aggressive in politics, it is not behind in the onward march of medical science and medical government, for it must be conceded that practically the governing power of the American Medical Association is in the hands of Southerners.

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As might be expected of our warm-hearted brethren of the South on this, as on former occasions, unbounded hospitality was extended to the visiting delegates, who represented nearly every State and territory in the Union. Ample facilities were provided for the section meetings, and the Grand Opera House was thrown open for the General Assembly, which convened every day at 11 in the morning.

The weather though warm in the day was cool in the evening, and probably on the whole we would feel disposed by all odds to vote the beautiful city of Atlanta a more tolerable and comfortable place in a hot spell than New York.

* * *

The attendance of registered delegates has not

been as large as one ought to expect in a body representing, as it does, more than double the number of regular practitioners residing within the boundaries of any other nation on the globe. Georgia, as we might expect, leads in number of registered delegates, with Illinois a good second, and Ohio third. New York State sent the largest representation seen in the halls of the National convention since the unfortunate code controversy shattered former professional concord and unity. All told, there were about fifty from New York; sixteen from New York City, the remainder chiefly from the Western counties. Old-code, new-code and no-code men were mixed there promiscuously without a thought evidently of the schism which had led to dissensions in their editorial household.

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The commercial exhibit was held in the spacious armory of the Atlanta Gate-Guard. Pharmaceutical supplies, proprietary medicines, surgical instruments, dressings, and apparatus with a large and unusually diversified variety of electrical devices, were spread about in a most attractive manner. It is not generally known that Atlanta stands close to Philadelphia as one of the greatest centers for the manufacture of proprietary medicines. This indeed constitutes one of her most important industries.

* * *

At 11 o'clock precisely, in the forenoon of the first day, the president's gavel came down, when the large assembly of delegates, which packed every part of the Grand Opera House, was called to order.

The Divine blessing was invoked by the Reverend HENRY McDONALD.

Dr. FRANK M. RIDLEY, of La Grange, delivered the address of welcome. The speaker paid a glowing tribute to the memory of the fathers of American medicine, and in an enthusiastic flight of eloquence touched on the early colonists and settlers in America, not forgetting to express a note of sympathy for Cuba, and calling to notice the fact that Atlanta is the empire city of the South. He said:

"Founded in the wisdom and generosity of OGLETHORPE, it was youngest and feeblest of the old 13 original colonies which, by their conjoined efforts, threw off the yoke of British domination on the plains of Yorktown. Not only so, but by their pronouncement sent forth from Independence Hall, they, like the veiled prophet of Khorassan, 'shouted freedom to the world,' and thus started that great political movement which means universal emancipation, and which to-day, it may be, is thundering at the gates of Moro Castle for the deliverance of liberty-seeking Cuba from the distress and ills of Spanish thralldom. In the meantime, Georgia has grown to such proportions as to be recognized in no dubious sense as the Empire State of the South.

"Here then, gentlemen, in this capital of the Empire State, I bid you greeting—here under the shadow of Stone Mountain, that huge boulder upheaval from abysmal depths of some Titanic force of prehistoric ages; here in earshot of the 'willow-fringed' Chattahoochee, described by our own Sidney Lanier as 'springing in the hills of Habersham, and shouting through the valleys of Hall,' as on it flows upon our western border 'mid banks of blooming flowers and springing ferns on its 'eternal journey' to the Mexic Sea.

"Then, gentlemen, I bespeak the sentiments, not only of my profession, but of my State, when I say we rejoice at the gathering in our midst of this distinguished body of medical *savants* coming, as you do, from no 'pent-up Utica,' but every part of

this great nation, 'from the slopes of the sea that sleeps, to the banks of the sea that's wild,' from all sections of this boundless continent composed of twoscore and more sovereign States, 'distinct as the billows, one as the sea.' We recall your former convocation in our midst, we miss the faces of those who, having served their day and generation, have passed to a higher state of existence, and, to-day 'they rule our spirits from their urns.'"

In the absence of Judge VAN EPPS, who was to respond in behalf of the State of Georgia, the Hon. JOHN TEMPLE GRAVES, the distinguished Georgian orator, addressed the convention.

His address was a masterpiece of oratory. He noted in the course of his remarks that of late years Atlanta had come to be named the "City of Conventions," as here, more than in any other American city, representative bodies of laymen and the learned professions had chosen to meet. He spoke in the most enraptured ecstasies of Georgia's triumphs, her hospitality and progress, and, in behalf of his native State, extended to all an unbounded welcome.

The time had now come for the serious work of the convention to begin. Dr. BEVERLY COLE, the presiding officer, from his first gesture and intonation of speech was by all conceded the right man in the right place. He presided with becoming grace and dignity, was prompt and firm in his decisions, yet thoroughly impartial. He is possessed of a strong, clear, melodious voice, heard without effort in any part of the auditorium.

All were impatient to hear his inaugural. This was carefully prepared and ably delivered. His principal topic was the educational question. As, with most men of advanced views on this subject, he strongly recommended a substantial groundwork in the classics for beginners in medicine, and an extended term of such length as would permit of a thorough theoretical and practical knowledge of the art, which the graduate is so soon to practice.

Turning to the modern trend of medical practice and progress, he seized the opportunity to condemn, in severe language, what he believed to be the vicious tendency of the times, in the direction of excessive and unnecessary operating. It appears that many of the gynecologists present felt badly cut by his smiting censure; and later in the day it was a topic for denunciation in their section. What he said on this subject will bear reproduction here. It ran as follows:

"While the year just passed has been marked by several important discoveries of scientific value, the usual advances in the line of medicine and surgery have been made, but I begin to fear that the tendency to push surgery to the exclusion or neglect of medicine is becoming glaringly conspicuous. It would seem that every tyro imagines that surgery offers the greatest and quickest route to success, and that fame is to be attained only through blood; hence, every case, the symptoms of which are directed to McBurney's point, is necessarily a case of appendicitis, for which the only sovereign remedy is the knife; or, if it be a woman, and her suffering is referred to the ovarian region, or she have a fibroma, however small and barren of symptoms of importance, not only must she be subjected to celiotomy at once, but, in nine cases out of ten, have her uterus or uterus and ovaries sacrificed, thus unsexing her without the slightest effort being made to spare these organs, and preserve to the woman her distinguishing function. If the same practice prevailed to emasculate every man who might have a neurosis of the cord and neighboring organs, there would be fewer operations than are now done

on women for no greater cause. So common have these operations become of late, owing to the comparative safety through the employment of asepsis attending them, that many women consent to or even apply for them, in order that they may avoid bearing children. How far a surgeon may be justified under these circumstances in rendering the desired aid is problematical, whether viewed from either a moral or legal standpoint. To use the language of another, 'We believe thoroughly in allowing the public to estimate the medical profession, but it sometimes seems as though the exploitation of the wonder of surgery was a little overdone, the result being that as soon as a person has any ailment of any part of the body, the people at once want to have it cut out.' And, I am sorry to say, that this feeling extends to too many of the profession, one saying to me some time ago in consultation, 'Why, Doctor, you very well know that all of value in our science is in surgery.' It is scarcely necessary to say that the author of this remark was an abdominal surgeon, or, to put it more directly, an abominable surgeon."

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Wednesday's grand meeting was mainly occupied in the reading of the address on medicine by Dr. W. OSLER. The style, diction, and delivery of his essay were in every particular quite perfect; but the substance and conclusions of his theme were most disappointing. His address most certainly stamps him a medical nihilist. He began by declaring that the only real medical progress that had been made in medicine of late years had been in the way of the better understanding and classifying of fevers.

In speaking of typhoid fever he made many statements which he most certainly will not be supported in by experienced practitioners. For example, he denies the simultaneous existence of malaria and typhoid poison in the same individual. He ridicules the pretensions of those who claim to abort typhoid by drugs, and says that antiseptics in the alimentary canal are inert as curative remedies. If he had typhoid himself, he would follow the late Dr. NATHAN SMITH's line of practice and do nothing in the way of medicating. He believes that LAFERAN's discovery of the plasmodium malarie will exert an important influence on the management of paludal disease, and he would advise that every practitioner should have a laboratory equipment to enable him to examine the blood of those suspected of malaria. Quinine he admits is the only specific known for malaria, but he tells us that its precise mode of action is yet unknown.

The sum and substance of Dr. OSLER's address were bacteriology and pathology. He mentioned how the zymotic diseases under the influence of hygienic measures were fast disappearing, and he incidentally observed that cholera had not visited this country since 1866, although New York has been in a frenzy of terror because our rather expensive luxury, the Board of Health, proclaimed it down in the New York Bay, and the late port-harbor physician was being eulogized by the press, as it appears, for suppressing what never existed. On the vital question of the hour, diphtheritic antitoxin, the speaker was silent.

* * *

Immediately on the close of Dr. OSLER's address the executive session opened, and the second day's session of the American Medical Association's convention was even livelier than the first, and before the day's work ended a red-hot fight was precipitated on the question of retaining Dr. W. D. ATKINSON in the position of permanent secretary of the association.

Dr. ATKINSON has been the secretary of the association for 34 years. For several years past an element in the association has tried to depose him, always without success. This year the effort was made with redoubled energy, and those who led the attack claimed that their chances of ousting Dr. ATKINSON were better than they had ever been.

The attack on the venerable secretary was begun by Dr. I. N. LOVE, of St. Louis, at the morning session in the Grand Opera House yesterday.

President BEVERLY COLE was in the chair, and he had all he could attend to to keep the convention from running wild when the fight was at its height.

It was frequently necessary for the president to resort to methods that were almost REED-like. So emphatic were his rulings on occasions that some one in the audience announced that the doctors had a second TOM REED to govern their deliberations.

"My name is not REED," said president COLE, "but you doctors sometimes need a czar to preside at this table in order to maintain order. I am willing to grant courtesies as long as such tactics can be properly enforced, but when it becomes necessary to be stringent and to confine ourselves strictly to parliamentary usages I am prepared to do it."

Evidently the president felt the time had come yesterday, for he wielded his gavel with more determination than usual, and he held the fighting delegates in perfect control. After the convention, Dr. COLE was congratulated on all sides for the splendid way in which he managed a body of warring delegates who were inclined to be belligerent on all occasions.

The charge was made that Dr. ATKINSON was not an up-to-date secretary, was not a stenographer, nor familiar with the modern requirements of the office, and further that there seemed no good reason why the position should not, like the president's office, be rotatory.

A more serious charge was brought against the secretary, that he had suppressed an important part of the transactions of last year, bearing on the question of electing a new secretary.

Dr. ATKINSON made an explanation which, though satisfactory in the main, was not quite as full as a complete vindication would demand.

At this stage of the proceedings Dr. ISAAC N. QUIMBY, of New Jersey, made a motion to table the whole matter.

This was carried by a vote of 93 to 61.

There can be no question but that there is a determined sentiment among the younger element to displace the old secretary; and no doubt—although Dr. ATKINSON this time was saved through a feeling of sympathy and the loyalty of his friends—he will spare the association another aggressive attack against him next year, by quietly resigning his post before that event comes off.

At noon all the sessions adjourned to attend an old-fashioned Georgia barbecue.

* * *

One of the biggest barbecues ever given on Georgia soil was that at Lithia Springs yesterday, when Mr. E. W. MARSH entertained the visiting doctors. Everything that goes to make the Georgia barbecue the greatest feast of epicurean taste was there. Chief Cook WARE had the meat prepared to the queen's taste, Lithia water flowed freely, and other beverages of a more exhilarating type abounded. By 12.30 o'clock the Union Depot was swarming with people. There were present

doctors from all over the Union, with their wives and daughters, the local fraternity in force, and Atlanta girls galore, who were out to make the occasion more charming and to help render the barbecue a success by their beauty and their wit. The train was made up in two sections of about eight coaches each, and every coach was packed. Fully two thousand went out from the city; and when the local contingent at Lithia, including the guests at the Sweetwater Park Hotel, had swelled the crowd, twenty-five hundred people assembled in the grove in which the 'cue was spread.

The tables were spread in the beautiful grove around the famous Sault Spring, which, since the days when the Indian tribes resorted to it to drink its healing waters, has been famous all through this section.

The dummy train and private conveyances carried down immense crowds, and hundreds walked the short half-mile from the depot to the grove. The tables were covered with snowy duck, and the intoxicating aroma of the cooking viands, mingled with the sweet smell of the Georgia pines, quickened many a step, as the pedestrians drew near the grove. By one o'clock the meats were cooked to a turn, and the negro waiters quickly bore the steaming meats to the chopping-table, where others, with broad axes in hand, soon chopped them into fragments and scraped them into the pans for distribution.

It was a new sight to most of the visitors, who had never seen a Georgia 'cue in course of preparation, and the way in which the viands disappeared was a compliment to Chief Cook WARE's skill.

By the time that the big tin pan was beaten as a signal that dinner was ready, fully twenty-five hundred souls were waiting under the magnificent oaks. The whole grove was fragrant with the scent of hawthorn buds and the wild honeysuckle, and the aroma of the steaming lambs, and shoats, and Brunswick stew would have tempted a confirmed dyspeptic.

When the signal to fall-to came, there was a grand rush for the long tables. Everything was ready, and busy waiters soon had every one supplied. There was lamb, beef, shoat, and delightful stew, and no stint of anything. The Lithia water from the flowing spring nearby was supposed to be the favorite beverage, but a score or more of ice-cool kegs under the shadow of the huge boulders near the spring promised other things. For those for whom King Gambrinus had no charms there were numberless refreshing juleps, and the occasional report of a stopper indicated that even champagne was not lacking. The feast was a delightful one and was enjoyed to the utmost. When every one had eaten to satiety, the crowd dispersed to stroll through the grove or to walk back to the Sweetwater Park Hotel. Mr. E. W. MARSH, who was the host of the occasion, was present in person and saw to it that everything went off smoothly. It was a memorable barbecue, even in the native State of the "'Cue," and has never had an equal, save perhaps in the famous Venable 'cue to the league of press clubs at Stone Mountain, several years ago.

Everything worked without a hitch, and when the trains returned to Atlanta, late in the evening, a happier and better satisfied crowd never disembarked in the heart of the city, to disperse to their various homes and give glowing accounts of the day's outing.

* * *

ADDRESS ON SURGERY.—Dr. NICHOLAS SENN, at the opening of the general meeting on Thursday

morning presented the annual address on surgery. His discourse was of considerable length, and, as might be expected from this remarkable man, a production of a high order of excellence.

His subject was a large one, but, with singular skill, he so reduced and compressed it as to include about all of great interest that can be said of modern progressive surgery. He claimed that, as a science, surgery cannot be said to have made great advances until the past fifty years. Modern pathology and bacteriology have laid the foundation for the steady and progressive advance of surgical thought and progress. The wonderful development of operative surgery during the same time is one of the earliest and richest fruits reaped from the vast and fertile field sown and cultivated by bacteriologists of every civilized country. Antiseptic and aseptic surgery has smoothed the rough and rugged pathway of the practical surgeon. It has nearly eradicated the once greatest enemies of the surgeon, viz., hospital gangrene, erysipelas, and secondary hemorrhage.

In considering special work Dr SENN said that the *furor-operatorie* manifested in special departments of surgery, and its obvious results, render the standing and legitimate scope of the general surgeon very unsatisfactory and indefinite.

Let the general surgeon advance, recede, turn to the right or the left, and he finds himself on reserved territory.

Operative surgery has been carried to too great extremes. Phlegmonous inflammation and suppurative osteomyelitis were considered at length, with recent measures for their prevention and cure.

Coming to tubercular diseases of the joints, the speaker said that only a few years ago many of those who gave special attention to that class of cases, and who were enthusiastic advocates of complete joint resection, now believe that by the employment of more conservative measures the joint may be spared.

In dealing with the subject of carcinomatous or sarcomatous tumors, the author declared that their cause had yet to be discovered.

Dr. SENN had opened the abdomen for the surgical treatment of malignant diseases of the stomach 19 times. In all except one the malady had extended into neighboring organs, and here general exhaustion precluded any relief-operation.

By a most remarkable coincidence, Dr. SENN plunged into the path opened a day or two before by the president, and bemoaned the dreadful and mutilating havoc of modern and overdone surgery.

The modern operations of gynecology, as at present abused, he condemned in severe terms. He declared that when he arraigns gynecologists before such a representative body of medical men for innumerable and inexcusable transgressions of the rules which ought to govern surgery, he does not include the scientific, conscientious workers in that department of surgery; but his remarks applied to a class of routine operators, which had recently grown to such alarming dimensions. The frequency with which women are castrated is one of the most flagrant transgressions of the limits of the art of surgery. The number of women who willingly sacrifice their ovaries to restore their shattered health, without securing the expected relief, has increased to an alarming extent. This sad experience has made the gynecologists more desperate than ever. It is indeed difficult to say where this rage for the removal of the female sexual organs will end, or what organ will be the next battle-ground for the aggressive gynecologist.

Finally, he had written and delivered his address

with malice toward none; in the interests of the suffering portion of the population; quite regardless of the impressions remaining.

CANADA LETTER

LONDON, CANADA, May 6, 1896.

MEETING OF THE PROVINCIAL BOARD OF HEALTH, ONTARIO.—The second quarterly meeting of the Provincial Board of Health was held in the Parliament Buildings, Toronto, April 28, 1896. Dr. BRYCE, secretary, drew attention to the new burial regulations passed at the last session of the Ontario Legislature. These regulations, if faithfully carried out by health officers and physicians, will make "graveyard insurance" an impossibility. Under the new statute, every death is to be reported by the medical attendant to the medical health officer in his district, said report to include a certificate of the cause of death. The health officer shall make investigation and report to the division registrar, who, if satisfied, issues a permit to bury the body, and no caretaker or owner of a cemetery, or burial ground is permitted to receive a body for burial unless presented with a certificate of registration and permission to bury from the division registrar.

A communication from Dr. OLIVER, of Niagara Falls, drew the attention of the board to the practice of embalming bodies previous to interment. The embalming solution, he said, contained certain poisons, so that in poisoning by any of these, a post-mortem investigation would be futile. A case of this nature was under investigation by the authorities at the time, which gave point to Dr. OLIVER's letter. The board accordingly passed a resolution recommending the Governor in Council to issue a regulation requiring the permit of the medical health officer of the municipality in every case before embalming a body previous to interment.

With regard to the Windsor water supply, it having been shown that an outbreak of typhoid had occurred through the pollution of the Detroit river by sewage, it was decided to recommend the councils of Windsor and Wakesville to construct an intake pipe to a point in Lake St. Clair at which the sewage would be avoided.

The Committee on School Hygiene made the following recommendations, which were adopted by the board: "That dental inspectors be appointed by local boards of school trustees to periodically visit schools and examine children's teeth, and that a dental hospital be started in Toronto for the benefit of poor children; and that these recommendations be urged upon the attention of the Minister of Education." I am not aware that school dentistry has been proposed in any country before. The Board of Health claims that dental hospitals are just as necessary and would be just as useful as general hospitals.

CHRISTIAN-SCIENTISTS.—"Prof." A. C. MOUNTEER, elocutionist and Christian Scientist, died of diphtheria in Toronto on April 16, without medical attendance. His child was attended for the same disease by a physician and recovered, but when he took ill himself he trusted to Christian-Scientists, with the result that the attack proved fatal. His case was in charge of a Rev. Mr. MCKENZIE, who, a couple of years ago, forsook the ministry of the Presbyterian Church because of his infatuation with Christian Science. He has been implicated in similar cases before now. The deceased had been a convert for about a month before he was taken ill. The futile efforts of the friends to get a certificate of death from a regular physician, as well as the fact that no report of the illness had been sent to the Health Office, came to the ears of the coroner, in

consequence of which an inquest was held on the body. The eldest boy was attending school while his father was sick. Drs. ANDERSON and DAVISON, who made the post-mortem, testified at the inquest, and gave it as their opinion that proper treatment early in the case would have saved the man's life. The coroner's jury returned the following verdict: "That the deceased, A. C. MOUNTEER, died April 16, from diphtheria, and that there was culpable negligence on the part of those in attendance in not calling in qualified medical assistance. While not desiring to reflect upon any religious doctrine of Christian Science, we think the evidence clearly shows the absolute necessity that exists for legislation that will afford protection to the community, and restrain them from leading people to their death, as we believe the deceased was led, by ignoring medical science."

The cry of persecution which the so-called Christian-Scientists raise against any attempt to restrain their "ministrations" to the sick, as well as the reluctance of legislators to compel patients or their friends to employ regular physicians, has heretofore deterred our lawmakers from protecting a too gullible public against the intrusions of Christian-Scientists and kindred sects. Human life is surely too sacred to be sacrificed to illusive doctrines and theories, and if our legislators but act upon the recommendations of the jury in the Mounter case, good may yet result from this unfortunate occurrence.

REPORT OF THREE CASES IN PRACTICE.—I am indebted to Dr. G. S. McKEOUGH (M.R.C.S. Eng.), of Chatham, for a report of the following interesting cases. Case II probably occurred in Dr. McKEOUGH's own practice, although not so stated.

Case I: Embolism of the brachial artery, followed by gangrene of the arm.—Mrs. B., a patient of Dr. THOMPSON, Essex County, aged 45, previous health considered good, was suddenly seized with a convulsion while in the performance of some domestic duty. She shortly recovered consciousness, but complained of pain in the right arm, greatest about the elbow joint. Below the elbow the arm was blanched, and no pulse could be felt in the radial artery. The arm soon became tense and swollen from the elbow down. The examination of the heart revealed a mitral regurgitant murmur, but not much hypertrophy. The arm remained tense, white, swollen, and pulseless, and the temperature reached 101° F. the next day. Up to this time hot applications were applied, and the pain rendered easier. On the third day the arm commenced to turn blue, was more swollen, the temperature registered 102°, and the patient was restless and uneasy. Several incisions were now made into the arm, and a quantity of sanious discharge escaped. Gauze dipped in hot bichloride solution was kept applied. The arm, however, below the elbow rapidly became gangrenous. On the fifth day the case was seen in consultation by Dr. McKEOUGH, of Chatham, and Dr. GRAHAM, of Bothwell. The line of demarcation was now distinctly visible, and the swelling was extending up the arm. Amputation was decided on and performed by Dr. THOMPSON, the arm being amputated about midway between the elbow and shoulder. The temperature at once dropped to normal and remained so, and the recovery of the patient was rapid and uninterrupted.

Case II: Albuminuria of pregnancy; induced labor.—Mrs. H. P., aged 31, married over three years, first pregnancy. Notwithstanding some reflex gastric disturbance in the early months, she enjoyed better health during the first six months of

pregnancy than before. About the seventh month she began to fail in health; there was slight swelling of the feet and hands, and a little puffiness under the eyes, but no nausea, loss of appetite, or disturbance of vision. An examination of the urine showed it to contain one-quarter albumin; quantity secreted, normal. She was put upon milk diet, and was allowed occasionally dry toast, stale bread, a little well-cooked porridge, and abundance of water. She was made to sweat freely every day, or every other day, according to her strength and symptoms, and her bowels kept well acted upon, first with pulv. jalapæ co., and afterward with Rochelle salts. Basham's mixture was also administered. The albumin diminished in quantity for a time, and the anasarca disappeared. The edema, however, would immediately return if the bowels were not kept freely open, and the diaphoretics persisted in. The active treatment required to control the albuminuria began to tell upon the patient's strength, while the ailment itself gradually became less amenable to treatment. At the beginning of the ninth month the urine was 50 per cent. albumin, the quantity lessening, and the strength of the patient failing. Under the circumstances, it was decided to induce premature labor. The patient was placed in the lithotomy position, the pubes, thighs, and vulva rendered aseptic, and a soft gum elastic catheter, with stylet, guided by the finger, was inserted into the cervix and gently passed backward between the membranes and the posterior wall of the uterus. The stylet was removed after the catheter was passed in within an inch of its full length. The projecting end was wrapped with sterilized iodoform gauze. Labor pains began 18 hours later, and terminated 9 hours afterward. Chloral hydrate was given after the pains became well established, and during the last hours of labor she inhaled chloroform. The sweating was continued for 24 hours after labor. The child cried lustily when born, and proved a healthy infant. In 10 days the albumin was entirely gone. The temperature during the puerperal period never rose above 99.2-5°. No vaginal douches were used either before or after labor.

Case III: Cystic kidney; removal and recovery.—Mrs. McG., aged 49, mother of a large family, of good personal and family history, was thrown from a wagon and injured her left side, confined to bed only for a few days, but afterward suffered more or less pain in the region of the left kidney, though not incapacitated from work.

Six months after the injury she noticed a lump in her abdomen to the left of the umbilicus. As it continued to grow larger, she consulted Dr. HOLMES, of Chatham, about a year after the fall from the wagon. He advised operative interference. After due preparation of the patient, an incision was made through the linea semilunaris, as the tumor was most prominent in that region. He found a cystic kidney, uniformly enlarged, weighing 3 lbs. 8 oz., and removed it. The patient made a perfect recovery. The abdominal colic and flatulence which she suffered from previous to the operation speedily disappeared.

* * *

Dr. THOS. G. RODDICK, Professor of Surgery, McGill College, Montreal, will be the Conservative candidate in one of the divisions of that city, in the forthcoming Dominion elections.

Dr. LAVELL, warden of the Kingston Penitentiary, has been superannuated. Dr. RYAN has been appointed surgeon to the same institution, vice Dr. STRANGE, also superannuated.

The Medical Faculty of McGill University, Mont-

real, are this year giving a post-graduate course, of six weeks' duration, beginning May 5.

Dr. D. MARR, of Ridgetown, Ont., secretary of the Kent Medical Association, is absent in Europe, in consequence of which no provision was made for holding the April meeting of the association. The meeting is now adjourned until July, as the Ontario Medical Association meets at Windsor in June, and the majority of the County of Kent Society will probably attend. Dr. IRWIN, of Kingsville (Kent Co.) succeeds Dr. DEWAR, of Essex, the latter removing to Detroit.

Dr. SHEARD, Medical Health Officer, Toronto, to whom was referred the request of a number of citizens, that a downtown emergency ward in connection with the General Hospital be established, has reported against the proposal. He says that the emergency ward at the hospital is well equipped, and sufficient for the city's needs.

EDITOR'S NOTES

Northwest Texas Medical Association held its fifth semi-annual meeting in the city of Bowie from May 5 to May 7.

Electrocution for Ohio.—The bill recently introduced in the Ohio Legislature to substitute electrocution for infliction of the death penalty, in place of hanging, has become a law.

An Illinois Decision.—The Supreme Court of Illinois recently handed down a decision that physicians cannot be compelled to report on contagious diseases, or to render any other public service, without payment.

Berlin Doctors Object.—It is estimated that about 325,000 cases are treated gratuitously each year at the Berlin Polyclinics, a great percentage of which are conducted under the direction of private physicians. Of the number of cases treated it is claimed fully one-half are well able to pay. The medical profession is agitating legislation for correction of the matter.

Commercial X-rays.—They are now getting up X-ray companies. Articles of incorporation for one have been filed in Chicago a few days ago; and Newark, N. J., is the principal city for the carrying-on of the company's business. The company will give exhibitions of the working of the X-rays in different cities and towns, and will make a bid to assist surgeons and physicians in making examinations.

New Hospital for New York.—The Columbus Hospital, in charge of the Salesian Sisters of the Sacred Heart, was opened May 2. The hospital was founded in 1892. It contains 100 beds, 60 of which are free, and has a medical staff of 12 house physicians and three visiting physicians. It is dependent upon voluntary contributions for support. Twenty sisters of the Salesian Order take care of the patients, and are assisted by three trained nurses and several infirmiry graduates.

Medical Bicyclers.—A Brooklyn doctor is organizing a bicycle club to be made up exclusively of Brooklyn physicians. It is proposed to use the wheel in the discharge of professional duties, making calls, and so on. A number of doctors in that city have discarded the horse and carriage, finding the wheel much cheaper, and at the same time it affords some exercise. The promoters of the movement believe that a doctors' cycling club will lend con-

siderable dignity to the sport of wheeling. The project started among the students of the Long Island College Hospital, where a large number of them have very little exercise, but who feel the need of it.

Michigan Physicians Want a Practice Act.

A concerted action by various medical associations in Detroit, Mich., is being taken to procure legislation in medical matters at once, and meetings have been recently held at which there were present members of the Wayne County Medical Society, the Detroit Academy of Medicine, the Detroit Medical and Library Association, the Detroit Surgical and Pathological Society, and the Grand Rapids Medical Library Association. These, and other societies desire to take up the matter of the regulation of the practice of medicine, against which there is pretty broad sentiment. An attempt of this kind was made at the last session of the Legislature, but the bill fell by the wayside. At the last meeting of the society, which was held in Detroit, May 1, Dr. L. E. MAIRE presided, and Dr. E. S. SHERRILL acted as secretary and treasurer.

Practice at Club Rates.—What is commonly designated as "the growing evil of club practice" has reached an acute stage in medical circles in England. According to reports from London it seems that clubs for obtaining medical attendance at contract rates are becoming very common there. It is stated that they undertake to supply members with all necessary medical attendance for a fixed annual fee, in many cases this fee being as low as sixty-two cents. It seems that a doctor must have thousands of patients on his list in order to make a bare living on this basis of compensation, as it would be a physical impossibility for him to much more than put in a very brief appearance at the bedside of his subscribers. The testimony of physicians at various coroners' inquests in London has demonstrated, according to the reports, that a physician's presence at any less pressing emergency than a death-bed would be quite out of the question. Medical men of all classes have taken up the question there, and it would appear that contract medical service at present rates will be seriously discountenanced.

Optional Law Courses for Medical Students.

A formal exchange of courses is being arranged between the faculties of the Yale Law and Medical schools. It has been decided that certain subjects in each department shall be open to seniors of the other. In the Law School a course of medical jurisprudence will be open to the medical students. It will be conducted by Prof. W. C. ROBINSON. In the Medical School the courses under Professors CARMALT and FERRIS will be in surgery and anatomy. It has been the rule heretofore that members of each department shall take a post-graduate year to study in the other.

Buffalo Medical Alumni Association Officers.

The following is the corrected list of officers of the Alumni Association of the Medical Department of the University of Buffalo:

President, Dr. P. W. VAN PEYMA, Buffalo; first vice-president, Dr. D. A. CURRIE, Englewood, N. J.; second vice-president, Dr. HERMAN G. MATZINGER, Buffalo; third vice-president, Dr. J. A. MCPHERSON, Tonawanda, N. Y.; fourth vice-president, Dr. J. W. PUTNAM, Buffalo; fifth vice-president, Dr. CHAS. MEINE; permanent secretary, Dr. E. L. FROST, Buffalo; recording secretary, Dr. N. V. CHAPPELL, Buffalo; treasurer, Dr. H. U. WILLIAMS, Buffalo; trustees: Drs. E. C. W. O'BRIEN, Buffalo; JOSEPH FOWLER, Buffalo; JULIUS WENZ, Lancaster, N. Y.;

H. P. TRUELL, Williamsville, N. Y.; CHARLES A. WALL, Buffalo.

Columbian University Commencement.—The seventy-fourth annual commencement of the Medical Department of the Columbian University was held in Lafayette Square Opera House, Washington, D. C., Thursday evening, the 7th inst. Rev. Dr. J. J. MUIR offered the invocation, degrees being conferred by President WHITMAN, and Dr. WILLIAM P. CARR delivering the address to the graduates.

Tennessee Medical College.—The following officers have been elected by the Board of Directors of the Tennessee Medical College for the ensuing year: Dr. J. C. CAWOOD, dean and president of the Board; Dr. MASTERS, registrar; Dr. KESTERSON, treasurer; and Dr. B. B. CATES, secretary. Reports from the dean, treasurer, and registrar were heard, all of which were excellent.

Weir's Index to the Medical Press.—The initial number of this monthly devoted to medical bibliography has reached us. It aims to present in a systematic way an index of the chief articles which have appeared during the month in the domestic medical press. Should the venture meet with proper support it is the intention of the publishers to index, as well, the articles which appear in the foreign medical press. Under the various headings of Dermatology, Hygiene, Dietetics, Genito-Urinary Diseases, Obstetrics, etc., the reader will find an index record of the articles which have been published. The new books which have appeared are also noted, so that the subscribers are kept well informed in regard to current literature. An index of authors is appended. Should the publishers be able to secure sufficient subscribers to enable them to defray the great expense they incur we do not question but that the monthly will prove very valuable to every physician, especially when engaged in the preparation of a scientific paper, since at a glance he may determine where he will find the latest contribution to the subject he is studying. In a measure this index fills the rôle of the *Index Medicus*, although it probably does not aim at such completeness.

The subscription price for the United States, Canada, and Mexico has been placed at \$3, and the publishers are FRANK WEIR & Co., New York City.

Buffalo Medical College.—On May 5 the Buffalo Medical College, which is a department of the University of Buffalo, celebrated its commencement exercises with the fiftieth anniversary of the foundation of that institution. During its career of half a century, the college has sent out into the medical and surgical profession many very conspicuous men. It is stated that among the honors it has to its professional credit are the first operation of excising a tumor, by the method now used generally all over the world, by a professor of the university, Dr. SANDFORD HUNT; the first vivisection in the United States before the class in physiology by Dr. J. C. DALTON in 1851; the first practical demonstration of obstetrical work by Dr. JAS. P. WHITE. In recent years a lack of appliances has stood in the way of the university making as bold strides in other branches of science.

In all its fifty years' existence the University of Buffalo has not received more than \$12,000, all told, in endowments, and \$2,000 of this came from the State in the early days when the college at Virginia and Main streets was erected.

It is related that in 1845 Dr. JAS. P. WHITE and

Dr. AUSTIN FLINT got the idea that a medical college should be located in Buffalo, and they broached the subject to well-known gentlemen, among them O. H. MARSHALL and the Hon. N. K. HALL, who afterward became Postmaster-General. They succeeded in getting a charter, and following this the old-time medical college at Geneva went out of existence, and Buffalo became the center of medical learning in western New York.

Seven professorships were created and filled as follows: CHAS. B. COVENTRY, M.D., general and special anatomy; JAS. WEBSTER, M.D., in pathology and materia medica; CHAS. ALFRED LEE, M.D., principles and practice of surgery; JAS. P. WHITE, M.D., principles and practice of medicine; and clinical medicine, AUSTIN B. FLINT. These men comprised the first faculty. Five of these professors went from the Geneva College. With these professors was associated Dr. C. L. FORD as demonstrator of anatomy. The first Chancellor of the University was MILLARD FILLMORE, who was President of the United States at the time of the organization. The first session started with 66 students, and the building occupied was in sad contrast to the present elegant structure which the university occupies on High street. Dr. FLINT resigned as professor of medicine in 1856.

American Pediatric Society.—The following preliminary program of the eighth annual meeting of the American Pediatric Society, to be held at Montreal, Canada, May 25, 26, and 27, 1896, is announced. The opening address will be made by the president, Dr. JOSEPH O'DWYER, of New York city, after which the following papers will be read:

1. "Local Treatment for Tubercular Meningitis." Augustus Caillé, M.D., New York city.—2. "Superficial Gangrene." B. K. Rachford, M.D., Cincinnati, O.—3. "Gangrene of the Lung. Complicating Typhoid Fever." George N. Acker, M.D., Washington, D. C.—4. "Malignant Endocarditis, with Specimen." J. Henry Fruitnight, M.D., New York city.—5. "Papilloma of the Larynx in an Infant aged One Year." Irving M. Snow, M.D., Buffalo, N. Y.—6. "Thigh-friction in Infants under One Year." Charles W. Townsend, M.D., Boston.—7. "Apparently Relapsing Cerebro-Spinal Meningitis; Death; Autopsy; a Case." William P. Northrup, M.D., New York city.—8. "Notes on a Case of Insolation in an Infant aged 13 Months." Henry Lafleur, M.D., Montreal, Canada.—9. "A Case of Enlargement of the Liver in a Child of 13 Months, with Symptoms Closely Resembling those of Typhoid Fever." A. D. Blackader, M.D., Montreal, Canada.—10. "Some Experimental Work on Lumbar Puncture of the Subarachnoid Space." Arthur Howard Wentworth, M.D., Boston.—11. "The Occurrence of Influenza in Children, with a Report of Local Epidemics." Floyd M. Crandall, M.D., New York city.—12. "Temporary Insanity Following Typhoid Fever." Samuel S. Adams, M.D., Washington, D. C.—13. "Endothelioma of the Brain, with Atrophy of Paralyzed Members." Frederick A. Packard, M.D., Philadelphia, Pa.—14. "Nasal Feeding in Diphtheria." Henry Jackson, M.D., Boston.—15. "On the Classification of the Tics or Habit Movements." William Osler, M.D., Baltimore.—16. "Report on the Collective Investigation of the Antitoxin Treatment of Diphtheria in Private Practice." L. Emmett Holt, M.D., New York city.—17. "Favorable Results of Diphtheria Antitoxin Treatment (Cases)." Frederick A. Packard, M.D., Philadelphia.—18. "Comparative Results of the Treatment of Diphtheria, with and without Antitoxin, in the District of Columbia." Samuel S. Adams, M.D., Washington, D. C.—19. "Sudden Deaths after Antitoxin Injection." A. Seibert, M.D., New York city. General Discussion.—20. "An Unusual Form of Congenital Cardiac Malformation." T. M. Rotch, M.D., Boston.—21. "Croup Laryngitis." Joseph O'Dwyer, M.D., New York city.—22. (a) "Perforative Appendicitis in a Child Two and a Half Years of Age." (b) "Adhesive Pericarditis, with Entire Obliteration of the Pericardial Sac in a Child Aged 16 Months." L. Emmett Holt, M.D., New York city.—23. (a) "Cicatricial Stenosis of the Larynx." (b) "Congenital Heart Lesion." Augustus Caillé, M.D., New York city.—24. "Abscess of the Brain." Samuel S. Adams, M.D., Washington, D. C.—25. "Congenital Heart Disease." Frederick A. Packard, M.D.,

Philadelphia, Pa.—26. "Organic Disease of the Heart." George N. Acker, M.D., Washington, D. C.

The secretary of the society is SAMUEL S. ADAMS, M.D., 1 Dupont Circle, Washington, D. C.

The Poet and His Lung.—The following tale is told of SYME, the eminent Scotch surgeon: TENNYSON, the poet, had consulted him about some affection of the lungs. Some years later he again called upon the man of science. Prof. SYME had neither any recollection of his face nor an acquaintance with his name. TENNYSON mentioned the fact of his former visit. Still SYME failed to remember him. But when the professor auscultated the poet's chest and heard the peculiar sound he at once exclaimed: "Ah, I remember you now! I know you by your lung." The lung was better known than the poet.

Coming Society Meetings.—American Orthopedic Association, at Buffalo, N. Y., May 19, 20, 21. JOHN RIDLON, M.D., secretary, 103 State street, Chicago, Ill.

Illinois State Medical Society at Ottawa, Ill., May 19, 20, 21. JOHN B. HAMILTON, M.D., secretary, Room 20, P. O. Building, Chicago, Ill.

Missouri State Medical Association, at Sedalia, Mo., May 19, 20, 21. FRANK R. FRY, M.D., secretary, 3133 Pine street, St. Louis, Mo.

Nebraska State Medical Society, at Lincoln, May 19, 20, 21. GEORGE WILKINSON, M.D., secretary, Omaha, Neb.

Pennsylvania State Medical Society, at Harrisburg, May 19, 20, 21. WM. B. ATKINSON, M.D., secretary, 1400 Pine street, Philadelphia, Pa.

Washington State Medical Society, at Tacoma, May 19, 20, 21. R. L. THOMSON, M.D., secretary, Spokane, Wash.

American Gynecological Society, at New York, May 26, 27, 28. HENRY C. COE, secretary, 27 E. 64th street, New York city.

American Pediatric Society, at Montreal, Can., May 25, 26, 27. SAMUEL S. ADAMS, secretary, 1 Dupont Circle, Washington, D. C.

Arizona Medical Association, at Prescott, Ariz., May 28, 29, 30. L. D. DAMERON, M.D., secretary, Phoenix, Ariz.

Connecticut Medical Society, at New Haven, Conn., May 27, 28. N. E. WARDEN, M.D., secretary, 174 Fairfield avenue, Bridgeport, Conn.

Kansas Medical Society, at Topeka, Kan., May. G. A. WALL, M.D., secretary, Topeka, Kan.

Indiana State Medical Society, at Fort Wayne, Ind., May 28, 29. KENT K. WHEELOCK, M.D., secretary, Fort Wayne, Ind.

Ohio State Medical Society, at Columbus, May 27, 28, 29. THOS. HUBBARD, M.D., secretary, Toledo, O.

Abroad.—Prof. J. FORSTER, of Amsterdam, Holland, has been appointed to the chair of physiologic chemistry at Strassburg, Germany, to succeed the late FELIX HOPPE-SEYLER. The Physiologic Chemistry Institution at Strassburg, is the most famous in the world.

Dr. WILLIAM THOMAS CORLETT, of Cleveland, Ohio, was recently elected a member of the Dermatological Society of Great Britain and Ireland.

Army Items.—Major Daniel G. Caldwell, surgeon, having been found incapacitated for active work by reason of disability incident to the service, was, by direction of the President, retired from active service on May 2, 1896.

Captain Charles E. Woodruff, assistant surgeon, now at Fort Sheridan, Ill., has been detailed for

temporary duty as attending surgeon, in Chicago, retaining his station at Fort Sheridan.

Captain Guy L. Edie, assistant surgeon, will, upon the expiration of his present leave of absence, report for duty at the Presidio of San Francisco, Cal.

Leave of absence for 21 days has been granted First Lieutenant George J. Newgarden, assistant surgeon. The leave takes effect upon his relief from duty at Fort Wayne, Mich.

Captain Julian M. Cabell, assistant surgeon, will report in person to the President of the Army Retiring Board at Fort Columbus, N. Y., at such time as he may designate for examination by the board.

Captain Aaron H. Appel, assistant surgeon, was relieved from duty as attending surgeon at Chicago, Ill.

Captain Ashton B. Heyl, assistant surgeon, was relieved from duty at Fort Thomas, Ky., and ordered to Fort Canby, Wash., for duty.

First Lieut. Benjamin Brooke, assistant surgeon, was relieved from further duty at Fort Canby, Wash., and upon completion of his examination for promotion, proceeded to Fort Thomas, Ky., for duty at that station.

First Lieut. Powell C. Fauntleroy, assistant surgeon, was relieved from duty at Fort Riley, Kan., and ordered to Fort Grant, Ariz., for duty at that post.

First Lieut. James S. Wilson, assistant surgeon, was relieved from temporary duty at Madison Barracks, N. Y., and ordered to Fort Clark, Tex., for duty at that post, relieving First Lieut. Isaac P. Ware, assistant surgeon.

First Lieut. Isaac P. Ware, assistant surgeon, on being relieved was ordered to Madison Barracks, N. Y., for duty.

Navy Items.—Passed Assistant Surgeon A. M. D. McCormick was detached from the Naval Academy and ordered to the *Bancroft*.

Medical Inspector Daniel McMurtrie was ordered for examination for promotion May 8.

Surgeon W. A. McClurg was detached from the *Concord* and granted three months' leave.

Passed Assistant Surgeon P. H. Bryant was detached from the *Petrel* and granted three months' leave.

Medical Inspector J. M. Flint, Surgeon J. C. Byrnes, and Passed Assistant Surgeon C. F. Stokes, were appointed a board to examine applicants for admission to the Naval Academy.

Personal.—Dr. A. L. METZ has been recommended by the faculty of the Medical College of New Orleans, La., for the chair of chemistry and medical jurisprudence. JAS. JONES and OTTO LERCH have been suggested as assistant demonstrators in the chemical laboratory, and Dr. R. GESSNER has been named for the position of assistant demonstrator of operative surgery.

Dr. AUGUST R. REDER has been reappointed assistant superintendent to the City Hospital, St. Louis, Mo.

Drs. H. O. JEWETT and E. B. NASH have been appointed consulting physicians at the Cortlandt City Hospital. The surgical staff consists of Dr. FRANK W. HIGGINS, F. D. REESE, S. J. SORNBARGER, H. T. DANA; and the medical staff, WILLIAM J. MOORE, PHILIP NEARY, and A. G. HENRY.

Dr. H. M. CHRISTIAN, surgeon in charge of the

genito-urinary dispensary of the University of Pennsylvania, has recently been elected adjunct professor of genito-urinary diseases at the Philadelphia Polyclinic.

Dr. J. D. THOMAS has been appointed on the medical staff at the Dayton (O.) asylum.

Dr. EDWARD OVERSTREET, one of the most prominent physicians of Appling County, Ga., was fatally wounded on May 2 during a personal difficulty with a young man named CARTER. The affray took place near Surrency, in Appling County.

Dr. JOHN C. NELSON, of St. Paul, has been appointed Danish Consul for Minnesota.

Dr. JAMES C. WILSON, medical director of Jefferson Medical College Hospital, in Philadelphia, has resigned. His successor is Dr. JOSEPH S. NEFF. Dr. WILSON resigned this position because it conflicted with other professional duties which fully occupied his time. He will retain his position as professor of practice of medicine and of clinical medicine in Jefferson Medical College. Dr. NEFF, who will become medical director, is 44 years old, and was graduated from the University of Pennsylvania in 1873. He has served full terms as resident physician in the Orthopedic and Pennsylvania hospitals. He has held several other positions at various times in the Philadelphia Hospital, and retired from active practice in February, 1887, on account of ill health. He is a member of the Philadelphia County Medical Society, the Philadelphia Pathological Society, the Medical Society of Pennsylvania, and the College of Physicians and Surgeons.

Dr. W. H. SAWYER, of Hillsdale, Mich., has been elected a member of the Detroit Academy of Medicine.

Dr. JOSEPH MUIR, of 34 West Thirty-third street, New York, has removed to 49 West Thirty-third street.

Dr. A. L. GILLARS retired from the medical board of the Pottsville Hospital, and is succeeded by Dr. W. H. ROBINSON.

Obituary.—GERMAIN SÉE, in Paris, France, May 13, aged 78. Was born in 1818 of Hebrew parentage; was graduated in medicine in 1846 from the University of Paris; in 1866 succeeded TROUSSEAU in the faculty of medicine.

Dr. GEO. A. FIEGENBAUM at the St. Joseph Hospital in St. Joseph, Mo., on April 29. He had been troubled for 18 months with stricture of the esophagus, and had gone to the hospital to undergo an operation. The post-mortem examination disclosed the fact that the esophagus and the trachea had a common opening. He was 41 years old.

Dr. GRAYSON MALLET-PREVOST, for the past 20 years a practicing physician, died at Zacatecas, Mexico, at the Presbyterian Hospital. His son, MALLET-PREVOST, of the Venezuelan Commission, was at his bedside at the time of his death. He was 73 years old.

Dr. WM. A. STROTHER, in Albany, Ga., April 30, aged 56 years. He was a native of Edgefield, S. C., and during the Civil War held the position of surgeon in the Confederate Army.

Dr. GEORGE M. MARTIN, at the home of his mother, in Westminster, Md., in his 38th year. Dr.

MARTIN was a graduate of the University of Maryland, class of 1881.

Dr. NEHEMIAH OSBORNE, at his home in Buffalo, N. Y., on May 3, aged 58 years. He was graduated from the medical department of the University of Buffalo in 1863.

Dr. E. G. GOIT, in Hammond, La., on May 1, aged 32 years. He was born in Wisconsin, and was graduated from the Rush Medical College, of Chicago.

Dr. NICHOLAS KINNEY, at Staunton, Va., on April 30, aged 75 years. He was graduated from the Jefferson Medical College of Philadelphia.

Dr. P. J. LA CHAPELLE, in Butte City, Mont., on May 1, aged 45 years. Dr. LA CHAPELLE was formerly a resident of Ishpeming, Mich.

Dr. GEO. D. STEPHENSON, at his home in Newark, N. J., aged 25 years. He was graduated from Columbia College, New York, in '92.

Dr. WILLIAM J. SCOTT, in Cleveland, O., on May 4, aged 74 years. He had been president of the Ohio State Medical Association.

Dr. JOHN W. JACKSON, of Rockaway, N. J., on May 3. He was graduated from the Jefferson Medical College in 1845.

Dr. PAUL BERTHIAUME, house surgeon of Notre Dame Hospital, in Montreal, Can., on May 2, aged 21 years.

Dr. O. W. STORE, of Camden, Me., at Boulder, Col., where he had gone for his health, of consumption.

Dr. J. F. BLAKE, on the 2d inst., at his residence on Main street, Northville, N. Y., aged 75 years.

Dr. J. T. HARRIS, on the 4th inst., at Hedgesville, W. Va., of pneumonia, aged 37 years.

Dr. JOSIAH M. ANSLEY, at Swedona, Ill., on April 17, of paralysis, aged 63.

Dr. R. J. MARVIN, formerly of Hastings, Minn., in Orange City, Fla., on May 1.

Dr. CORNELIUS HECTOR, in Rochester, Ind., on May 1, aged 75 years.

Dr. GEO. W. DEARBORN, in Exeter, N. H., on May 1, aged 79 years.

Dr. FRANCOIS LOUIS GENAND, at Pt. St. Charles, P. Q., on May 3.

Dr. W. H. GRIM, Beaver Falls, Pa., on April 30, aged 65 years.

Dr. JOHN MOHN, Union Hill, N. J., on May 4, aged 55 years.

Dr. J. F. BLAKE, in Northville, N. Y., on May 2, aged 92 years.

Dr. JOSIAH CARTER, in Clarkston, Ga., May 1, aged 66 years.

Dr. W. H. H. MACMILLAN, in Decaturville, Tenn., on April 29.

Dr. S. BISLAND, in Natchez, Miss., on May 2.

Dr. A. AUSTIN, at Coshocton, O., on May 1.

William F. Jenks Memorial Prize.—The College of Physicians of Philadelphia announces that the fourth triennial prize of \$400 under the deed of trust of Mrs. WILLIAM F. JENKS will be awarded to the author of the best essay on "The Etiology and Pathology of Diseases of the Endometrium, including the Septic Inflammations of the Puerperium."

PUBLISHERS' DEPARTMENT

THE MULTIPLE COMMINUTER

By means of this apparatus, the inventor, Dr. JOHN ROBERTSON, claims that almost any remedy in the *Materia Medica* can be administered directly in the most efficient and least objectionable form. He describes the device as follows:

This apparatus has six comminuting flasks, in each of which may be placed a different remedy or those in a prescription. These six remedies can be used singly or in any combination and in any proportions. Drugs or medicines that are not soluble in each other can be administered in perfect combination, as the liquids are placed in separate flasks, and only the comminuted products are brought in contact in the central flask, where, on account of their extreme attenuation, they are perfectly mixed. In this way drugs that are chemically incompatible in the liquid state can be administered in perfect combination and without any change in their chemical properties.

Having flasks for six different prescriptions, which are capable of more than a hundred combinations, the Multiple Comminuter can be used with greater facility and greater economy of time than any other apparatus known. A dozen patients can be treated, one after another, without any delay, and yet each one can receive treatment especially adapted to his case and entirely different from all the others. Or one patient may receive a remedy for the nose, another treatment for the throat, and still another for the eyes or ears, each change being made instantaneously by the turn of a stop-cock.

Any substance can be used in the Multiple Comminuter, provided it be in the liquid state. Nearly all fluid extracts and tinctures work well in their normal state.

The apparatus was primarily designed for the treatment of the respiratory tract, middle ear, etc., but it has also been found of great advantage in the treatment of vaginal and rectal diseases.

RAILWAY NEURASTHENIA

An extract from a paper read before the National Association of Railway Surgeons, by THOMAS OS-MOND SUMMERS, M.A., M.D., F.S.Sc. (London), editor of the St. Louis *Clinique* and professor of anatomy and histology in the College of Physicians and Surgeons, St. Louis, Mo.:

"The ordinary diseases of humanity may afflict all artisans or professional men alike, and yet there are conditions which determine pathological relations, and focalize those influences upon the organism in action, which disturb its balance, and even superinduce permanent disease. There are diseases which, however possible in all conditions of race, clime, or other environment, nevertheless are precipitated, if not indeed originated, by the character of occupation on which the individual may be engaged. For instance, it is well known that mining favors rheumatism; silk-weaving, tuberculosis; filemaking tends to produce lead-poisoning; gilding brings on mercurial poisoning, when the ventilation of the workroom is deficient; constant writing, paralysis; wool-sorting, anthrax. It would be impossible in the limits of this paper to even enumerate the causes incident to special conditions. While statistics are worthy of most careful and respectful consideration, nevertheless they fail to establish a principle of scientific accuracy in conclusions as these, which form the discussion. We shall, therefore, pass them

by, and reach at once the salient or rather the practical issues involved.

"Among all the various occupations which are necessary to the conditions of civilized life, there is none which makes such a draft upon the vital energy of the organism as railway service. This arises from four causes incident to this line of life: 1. Rapid and constant transit. 2. "Rattle of the rail." 3. Irregularity of diet, and the ordinary life habitudes. 4. The worry incident to the calling.

"Time would fail us to enter into the full therapeutic indications set forth in our fundamental principles, but there are, thanks to the ingenuity of pharmacal and chemical devotees, certain combinations so constructed as to enter without digestive action distinctly into the several tissues of the body, supplying the waste without draft upon the normal cellular activity of the organism. I believe, I even know, that these conditions have been met in the preparation called melachol, which not only contains the normal inorganic constituents of the wasting nerve organism, but also, by its steady peristaltic action, opens the pathway of excrementitious function."

NEW SUBSTITUTE FOR IODOFORM

The recently introduced antiseptic, nosophen, has been highly lauded as a substitute for iodoform, and apparently upon good grounds, as the results of an extended use in a large number of cases demonstrated thoroughly its bactericidal as well as disinfectant power, to a number of physicians. It is chemically tetra-iodo-phenol-phtalein, and although containing 61.7 per cent. iodine, its use internally is said to be harmless, as much as 0.5 gme. ($7\frac{1}{2}$ grn.) having been given without the slightest unpleasantness; it possesses the advantage besides of being entirely odorless. Five gme. have been given to dogs, without causing any bad results.

Nosophen combines with other substances to form salts; that with soda being known as antinosin, and the bismuth salt as eudoxin. Antinosin is now largely used as a bactericide, and in power exceeds iodoform when used against pus cocci, diphtheria bacilli, and schizomycetes; it is also used in powder or solution in soft chancres, chronic, purulent, fetid discharge of the middle ear, and catarrh of the bladder. Eudoxin is employed as an intestinal antiseptic in nursing infants as well as adults, with excellent results.

Nosophen and its preparations are made by the Rhenania Chemical Works in Aachen, and Messrs. STALLMAN & FULTON, of 10 Gold street, are the agents for the United States.

QUINALGEN WITH SODIUM SALICYLATE

The first experience of Dr. JOS. THOMAS, of Quakertown, Pa., with quinalgen was in a sense accidental, but none the less satisfactory. Among the circle of steamer acquaintances in a trip to England last summer was Mr. GEISHARTZ, an attorney from Lincoln, Neb. Both gentlemen also embarked on the *Augusta Victoria* at the same time for the return trip. Mr. GEISHARTZ was suffering excruciating pain from acute rheumatism in the right knee and ankle. The Doctor continues: "Out of sympathy I prescribed for him, but was embarrassed to secure proper remedies. Mr. S. A. RICKARD, who was on the steamer, kindly offered me a bottle of tablets—quinalgen—one of the coal-tar preparations. These were given in connection with salicylate of soda. Next morning Mr. GEISHARTZ was entirely free from pain.

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ORIGINAL CONTRIBUTIONS

GLASSES DO NOT ALWAYS GIVE IMMEDIATE SATISFACTION. WHY?

By H. P. NOTTAGE, M.D.

TO the laity it seems to be a comparatively easy matter to fit a pair of glasses. The general practitioner, who has such constant and varied demands made upon his time that he cannot of necessity keep posted in ophthalmology, often shares this opinion.

When the patient, after a careful examination by the oculist, finds that he is doomed to an uncertain period of misery, he naturally thinks that something must be wrong. Any explanation from the oculist is thought to be a confession of incompetence, or to proceed from motives that are not entirely disinterested. The patient after putting on glasses may happen to be taken sick. The glasses are thought surely to be the cause. The physician takes the glasses to another oculist, who states the harmless nature of the lenses. Suppose in this case the oculist decided to put on the full correction, thus throwing upon the ciliary muscle an extra but normal amount of work. If the patient is in good physical condition the muscle responds and is strengthened by exercise. When he recovers he tries on the glasses again and finds that he cannot see well with them. The muscle, sharing the general weakness of the system, will not so readily respond; but the physician, not knowing or not thinking of this particular point, is confirmed in his opinion that a serious mistake has been made.

In order that the specialist in this department may have the intelligent assistance of the family physician, in the hope that patients may thereby receive encouragement to persevere and follow the directions of the oculist during their trying period of adaptation to glasses, I have undertaken to present in this paper a few of the reasons why glasses

do not always give immediate satisfaction. To do this it is necessary to present certain facts regarding muscular errors which have been engaging the attention of the profession for the past few years.

Mydriatics.—It is always safe to ask if the oculist used any "drops" in testing the eyes. It will sometimes be found that the patient refused a mydriatic either because it would involve some delay or interference with his business affairs or for the reason that he has heard that someone else "went blind" after having "drops" put in his eyes. It would be far better to undergo a few days' detention from business than to be obliged to keep constantly changing glasses. The effects of homatropine pass off in from twenty-four to forty-eight hours, and those of scopolamine in three days. The period of annoyance can be shortened by eserine or almost abolished by convex glasses. As for the fear of blindness, comment is unnecessary.

The question regarding the advisability of using a mydriatic is one that has not been settled for all cases of refraction or muscular error. In this country, where the ophthalmometer has been so universally employed, attention was for a time diverted from the mydriatic, for oculists are only too anxious to avoid the loss of time both to themselves and to the patient.

The American spirit of "hustling" should not be allowed too much freedom in this department of our work. Lately the mydriatic has again asserted itself, and the ophthalmometer, although not found to be of universal application, nevertheless has come to stay.

In England we find the opposite to be true. At Moorfields I saw an antiquated form of the Javal instrument tucked away "among the bats and cobwebs." The students present did not know how to use it. With a clinic of 500 patients daily and the refraction-room full to overflowing, our English brethren were patiently working out the refraction with the mydriatic and the plane mirror. As in other questions the middle ground here is the safer.

The oculist, wishing to give the patient the benefit of the doubt when there seems to be nothing to contra-indicate, may have said nothing in a given case about a mydriatic.

It is the custom of almost all oculists to request the patient to return in a few days after putting on his correction in order that a final examination may be made and advice given for the future use of the eyes. It would be interesting to know how many of these return for this exceedingly important examination.

A patient who does not thus return has not used the oculist fairly, nor has he pursued the wisest course for his own good.

It is not reasonable to expect perfectly clear and comfortable vision as soon as the glasses are put on. A habit cannot always be abolished in a day. A certain standard of vision may have been maintained by a powerful and perhaps unequal contraction of the intrinsic and extrinsic muscles because of strong impulses sent to the nerve-centers by the blurred appearance of objects, or because the "guiding sensation" of the retina requires a powerful muscular contraction in order to produce and maintain binocular vision. Now, when the full correction is put on it may be weeks before the nerve-cells will give up acting abnormally and respond to a normal stimulus.

Myopia.—Distant vision with the correct glass may be good, but the patient may have difficulty in reading. The focus being in front of the retina he has used his ciliary muscle very little, and it may not be able at once to respond to the normal stimulus; or if there is exophoria and the interni are weak there will be a trying period before the necessary amount of convergence can be steadily maintained. These patients may leave off the glasses when the eyes begin to ache, until by repeated trials the full correction can be borne. The younger the patient the quicker and more completely will this result be attained. The nearer he approaches to 45 the more difficulty will be experienced in getting accustomed to the glass. The age of failing accommodation is not a hard and fast line. For this reason it is not always easy to judge at once just how much of his full correction he can comfortably wear.

Hypermetropia.—If there is no exophoria the full correction is usually put on; but, as the patient has obtained his vision by constant ciliary action, keeping the focus forward by muscular effort, it is not to be expected that the overdeveloped muscle will immediately resign its extra work to the glasses in order to respond to a weak normal stimulus. If there happens to be an exophoria there is often more difficulty in wearing the glass than in going without it until the weak muscle is strengthened or the stronger muscle tenotomized. Such patients actually wear a concave glass with comfort for a while, and here is where the spectacle vendor makes a mistake. The constant effort to overcome the exophoria produces a spasm of accommodation and a pseudomyopia. Such a case illustrates the need of know-

ing the exact muscular condition before attempting to prescribe a glass.

Astigmatism.—Cylinders are usually the most difficult glasses to wear at first. Objects look distorted and the patient becomes dizzy. The oblique muscles are brought into new relations to the other muscles by means of the cylinders, and a slight turn of the axis over a few degrees may throw the strain from the relatively strong inferior obliques to the weaker superior obliques, with the result of causing painful vision. All this may happen if the frames are slightly bent or if they are not level before the eyes.

The function of the obliques is being more clearly understood since the researches of Dr. SAVAGE have been published, and it is to be expected that many obscure cases of painful vision will be relieved when the cylinders are prescribed according to these recently discovered laws governing oblique astigmatism.

Heterophoria.—The treatment of muscular errors has made such rapid advances in the last five years that it is fast becoming inexcusable for an oculist to prescribe glasses without knowing the strength, both actual and relative, of every eye muscle. With Gould's "convergence-stimulus" exercises, an adduction of only 5° can, in a few days, be brought up to 30°, 40°, even 60°; and what is remarkable, the results seem to be permanent. Whether it is that the nerve-centers are taught the "knack" of sending powerful impulses, or that the muscles are actually strengthened is not yet settled. The facts are that the painful symptoms are cured, and often without a tenotomy.

At first there was danger of too many "tenotomaniacs" in the profession. Now the exact indications for tenotomy are being more clearly understood, and we find it simply indispensable in a properly selected case. Another class of cases can be cured by the exercises alone. Instead of prescribing prisms as crutches for weak muscles, each muscle is exercised, and if it will not respond, it is shortened and thereby relatively strengthened.

This knowledge of muscular conditions has developed certain rules for the fitting of glasses, which, if neglected, will often result in dissatisfaction to both patient and physician. A glance at the following table, which fairly represents the recent opinions of the profession, will show why, in this class of cases, the mere fitting of a glass will not give comfortable vision. Yet the patient often refuses to have anything further done.

DIAGNOSIS AND TREATMENT OF HETEROPHORIA

Asthenic Orthophoria:

Lateral muscles balance $\left\{ \begin{array}{l} \text{far} \\ \text{near} \end{array} \right\}$ abduction less than 8°

Treatment: Rhythmic exercise $\left\{ \begin{array}{l} \text{externus} \\ \text{internus} \end{array} \right\}$ wall to wall exercise

Asthenic Vertical Orthophoria:

Vertical balance $\left\{ \begin{array}{l} \text{deorsumduct.} \\ \text{sursumduct.} \end{array} \right\}$ less than 3°

Treat.: $\left\{ \begin{array}{l} \text{ceiling to floor exercise;} \\ \text{or prisms for exercise} \end{array} \right\}$

Sthenic Exophoria :

Exoph. { far } abduction 8° or 8° +
 { near }

Treat.: { rhythmic ex. or } interni
Abd. 8° { conv. stim. ex. }

Treat.: { shortening or advancement of interni
Abd. 8° + { partial tenot. of externi

Asthenic Exophoria :

Exoph. { far } abduction less than 8°
 { near }

Treat.: { rhythmic and wall to wall ex.
 { Price's double prisms

Sthenic Esophoria :

Esoph. { far } Adduction 40° +
 { near }

Treat.: { full correction of Ht.
 { rhythmic ex. of externus
 { partial tenot. of interni

Asthenic Esophoria :

Esoph. { far } adduction less than 20°
 { near }

Treat.: { rhythmic and wall to wall ex. of externi and
 { interni

Sthenic Hyperphoria :

Hyperph. { sursduct. } 3°
 { deorsumduct. }

Treat.: { exercise with hyperphoric prisms
 { partial tenot. of sup. rect. of hyp. eye if deor-
 { sumduct. is 3° + or shortening of inf. rect.

Asthenic Hyperphoria :

Hyperphoria rarely more than ½°

Surs. and deors. of cataphor. eye less than 3°

Treat.: { exercise with hyperph. prisms
 { ceiling to floor exercise

Fall River, Mass.

GASTRECTASIS

By CURRAN POPE, M.D.

Professor of Diseases of the Mind and Nervous System and Electro-therapeutics in the Hospital College of Medicine, Medical Department of Central University, Louisville, Ky.; Consulting Neurologist to the Louisville City Hospital, etc., etc.

ABOUT ten years ago dilatation of the stomach first began to receive notice through the researches of BOUCHARD, and since then the attention of many investigators has been attracted to this subject which is such a common yet important one because of its symptomatology being so largely made up of the so-called reflex symptoms, apparently foreign to the disease.

Care must be taken to differentiate between dilatation and simple weakness or atony, the crucial test being that in dilatation the stomach does not empty itself after seven hours, while it does in atony.

Etiology.—The causes of dilatation of the stomach can be divided into two groups: (1) Mechanical or obstructed dilatation; (2) myasthenic dilatation or enfeeblement of the musculature of the stomach wall.

MECHANICAL OR OBSTRUCTED DILATATION.—Mechanical stenosis, usually of the pylorus, may be caused by congenital malformation or adhesions to neighboring parts, but it more frequently follows cicatrization of an ulcer, or is due to a neoplasm the commonest of which is carcinoma. The delicate relations between the contents of the stomach, its muscular action, and the resistance at the pyloric orifice are such that they must be in proper proportion and accurately adjusted, or a disturbance of the function of the stomach results, and dilatation is produced. The

dilatation which is caused by mechanical obstruction is a symptomatic disorder, and never an independent disease. It is in the moderate cases of dilatation that the atypical symptoms are produced, and it behooves us to search for the cause and make an exceedingly careful differential diagnosis; for a mechanical or organic dilatation is incurable, while those that are functional in character are those that are curable. Among the mechanical causes cancer stands out pre-eminently. BARTELS calls attention to the mechanical effect of nephroptosis or floating kidney as a mechanical cause of dilatation, acting by pressure upon the pylorus and duodenum.

EWALD claims that there is no relation mechanically between these two diseases, but that they are coincidental, especially in women, and a case in the writer's practice bears out this great clinician's statement.

MYASTHENIC CASES.—The second great group, cases due to myasthenia or *relaxation of the muscular fiber*, constitutes a large percentage of the cases. Of the causes that tend to produce muscular weakness leading to dilatation I should place at the head of the list anemia, chlorosis, and neurasthenia. These three diseases are due to lack of nutrition, and the absence of sufficient nutriment producing deficient quantity and quality of blood results in a general laxness of muscular fiber, and the contractile elements of the gastric walls are not excepted, and gradually these elements become weak and relax. In the same way chronic diseases of various kinds act, and especially chronic gastritis.

In those diseases characterized by circulatory disturbances, especially affections of the heart, liver, and kidney, we are apt to have dilatation of the stomach. Diminished excitability of the delicate nervous apparatus presiding over peristalsis frequently produces relaxation in the muscular fiber of the stomach, and especially is this apt to be the case in hysteria and nervous dyspepsia.

As a result of an excess of secretion of hydrochloric acid (hyperchlorhydria) spasm of the pylorus may result, and when such is the case dilatation of the stomach is often a resultant.

The fermentation of retained foods produces large quantities of gas, and the result of these gaseous products of fermentation is to produce an irritability of the muscle of the stomach tending toward spasm of the pyloric sphincter, which results in further distention of the stomach.

Dilatation may follow an atonic condition of the stomach.

Symptoms.—The symptoms of dilatation usually develop very slowly and at first present some of the ordinary conditions of so-called "simple dyspepsia." The symptoms are very irregular, and, as a rule, at first have no time-relation to food; or they may come on some four to six hours after meals. There are two classes of symptoms connected with this disease and they may be divided as follows: (1) Gastro-intestinal symptoms; (2) reflex or toxic symptoms.

GASTRO-INTESTINAL SYMPTOMS.—In the first group

we find, very prominently, *epigastric distress and pain* some little time after meals. This distress is diffused and it may precede, when the disease is further advanced, another symptom, namely, vomiting.

This distress is frequently accompanied by a burning or heat at the pit of the stomach and is produced by an excess of HCl or irritating effects of bacterial decomposition with the resulting formation of organic acids.

The generation of gas as a result of fermentation is a prominent symptom of dilatation of the stomach and produces by its mechanical distention increased flaccidity of the muscular fiber. As the stomach becomes distended with the gases, pressure is exerted upon the heart, causing shortness of breath, palpitation, irregularity, and cardiac pains, and in some cases sudden death, owing to the mechanical interference with the cardiac action. As the muscular fiber relaxes and the dilatation increases, the pylorus may become patulous and the intestinal and biliary secretions pass into the stomach. As the latter are alkaline, and the gastric juice acid, the chemical reaction taking place results in further generation of gases.

As a resultant of the above, eructations become a prominent symptom of dilatation. These are inodorous at first, but later on they become flat, heavy, or musty, and still later very foul.

Regurgitation of food, in my experience, has been a rather unusual symptom, occurring much less frequently than one would infer from the literature of the subject. The regurgitated matters are usually acid and odorous. The appetite is usually good, although constant variations take place in these cases. Patients complain of a peculiar, foul, disagreeable taste in their mouth or sometimes of a sweetish, nauseous character. The thirst is usually increased, and, when large quantities of water are taken, increased weight, fullness, and distention are experienced.

Vomiting is a prominent symptom of dilatation in well-developed cases, especially those accompanied by mechanical obstruction. Its characteristic is that it occurs at intervals of 24 or 48 hours, and contains food that has been eaten a number of days before. The vomit is usually acid, and feels to the patient hot and irritating, setting the teeth on edge. Vomiting gives temporary relief from gastric distress, but produces extreme general prostration.

REFLEX OR TOXIC SYMPTOMS.—BOUCHARD, ten years ago, first called our attention to the nervous symptoms produced by dilatation of the stomach. Prominent among the symptoms is intense *depression* on first awakening in the morning, together with extreme muscular weakness, patients frequently complaining that they are more exhausted on rising in the morning than when they went to bed. *Headache* is the common accompaniment of the condition. *Vertigo* is frequently found, and everything that increases intracranial pressure, such as stooping over, produces it. *Hot flashes* accompanied by palpitation and cardiac oppression are very common.

Numbness in the limbs, and *neuralgia*, especially of the trigeminal and intercostal types, are very frequent. *Insomnia* is always present and frequently the prominent symptom for which the patient seeks relief. There are *skin lesions* frequently accompanying dilatation of the stomach, among which eczema, urticaria, acne, and pigmentation are prominent. The mental symptoms are prominent. Depression of a melancholic type is by far the most prominent. *Transitory aphasia*, and especially the misplacing of words in a sentence, or interference with their clear articulation, is very common. *Forgetfulness* is common, mental irritability considerable, and frequently the intelligence is apparently lessened for the time being. Patients cannot concentrate their attention with the same degree of force as formerly. The reflexes are usually exaggerated and myasthenic irritability in the shape of tremor is quite marked. The special senses are nearly always affected; blurring of sight, specks before the eyes, and diplopia have been observed by me repeatedly, together with tinnitus aurium.

LEUBE reports a case of melancholia in a man, aged 45, suffering with this disease, and DEVEY believes dilatation to be able to produce alienation in those predisposed to insanity, and that it is also apt to modify existing mental disease by the toxins acting on the already weakened nervous system, lessening the mental faculties, increasing the depression and irritability of the patient.

RESULTS OF DILATATION.—Dilatation may affect the general nutrition of the body, producing, in mild cases, no effect whatever, but in the majority of cases where it has existed some time and is moderately marked in degree, wasting, to a certain extent, may be present, and in severe cases general emaciation is frequent.

The bowels are as a rule constipated, but may become loose under bacterial decomposition, and the feces offensive, of a doughy consistence, acrid, and expelled with considerable pain and burning. Associated with this condition there is considerable intestinal flatulence and between the attacks of looseness we find the stools small, hard masses mixed with mucus and a watery discharge.

Dilatation tends to produce an abnormal dryness of the skin and mucous membranes, and as soon as this is brought about the irritable nervous patient is made greatly worse, and may even pass into a state resembling tetany, a condition first described by KUSSMAUL.

Physical Examination.—**INSPECTION.**—We find, if the stomach is distended, that there is a characteristic prominence of form in the lower epigastric region. The lower border of this swelling crosses the mid-line usually on a level with or just above or below the umbilicus, and between it and the symphysis pubis, gradually shading off to the left. We may note occasionally pulsations.

PALPATION.—Upon careful palpation we may feel the stomach as an ill-defined round edge at or below the umbilicus and shading off to right and

left, giving one a feeling of increased resistance, like a hard rubber ball. In women we may be able to make out the stomach in a vertical position, especially in those who have laced a good deal, this position being due to the rotation of the transverse axis to a vertical one upon the pylorus as the pivot.

PERCUSSION.—The area of stomach dullness is increased. The exact lower edge of the stomach is frequently made out with difficulty, and the method of Dehio may be used to assist in mapping out the limits of the lower border of the stomach. The patient drinks a half-pint of water and the lower border is mapped out; he drinks another half-pint and again the lower border is mapped out; and this is done until, if possible, a quart of water is drunk. This test is of only conditional value, for a normally small stomach may be moderately dilated, and yet be within the average normal limit, but in its action may be pathological.

AUSCULTATION.—If we place our hands flat on the abdomen and give the abdominal walls a shake, or shake the body, we can hear with the ear or stethoscope sounds of a splashing character possessing a faint metallic sound. They are known as the "splashing" sounds and are pronounced by MARTIN as "practically diagnostic of this condition." The same writer says "that the deglutition murmurs become especially prominent in these cases." STRUEMPELL says "that this sound is characteristic, but not pathognomonic."

STOMACH-TUBE.—By far the best diagnostic agent of a physical character is the stomach-tube, and by its means we can absolutely ascertain whether there exists the food-retention diagnostic of this condition. If we find food in the stomach seven hours after a meal or if we can abstract anything from the stomach before breakfast we may feel satisfied that the stomach is dilated; but the degree of dilatation must be determined by experience and the weighing of all the additional signs and symptoms. The introduction of air through the tube may assist materially in mapping out the region of the stomach and may assist inspection.

EXAMINATION OF STOMACH CONTENTS OR VOMIT.—If the contents are placed in a conical glass and allowed to stand, they will separate into three layers, the uppermost of which is a brownish foam; the middle one is a larger layer of yellowish-brown, faintly cloudy fluid; and at the bottom a layer consisting of dark, crummy, slimy masses, chiefly remains of food. Bubbles will rise through the fluid, due to the carbonic-acid gas, and bacteria and fungi are usually found in numbers. We may find remnants of food eaten some days before, thus additionally confirming what the tube shows.

The total acidity when increased is due to HCl or an abnormal quantity of organic acid, ranging from 70 to 85 c.c. or more; free acidity, congo-red test will usually show black; free hydrochloric acid may or may not be present, depending on the dilatation and its accompaniments. Gunsberg's, Boas's, and tropeolin tests should be used to determine its

presence. Lactic and butyric acids, tested for by Uffelmann's reagent after extraction with ether, are usually found in some quantity. Albumoses are usually present. Peptones may or may not be present, but usually are. Erythrodextrin and acroödex-trin are usually present. Sugar is readily shown by the reduction test. Digestive capacity is markedly lessened. Pepsin and the rennet ferment are usually present, but lessened considerably. Microscopical examination shows food residues, starch granules, meat fibers, epithelium, micro-organisms, sarcinæ, and yeast fungi.

A careful study of the salol test has been productive of good in my hands. In an article which is to appear shortly this is fully discussed. In dilatation the presence of salicyluric acid in the urine is markedly delayed: Gunsberg's test, markedly delayed; rhubarb test, markedly delayed.

The volume of urine was, as a rule, diminished, and peptone, indican, skatol, uric acid, oxalates, with a trace of albumin, were generally present.

Diagnosis.—We must carefully differentiate atony, and in this respect the stomach-tube examination of the contents and the symptoms at once settle the matter. If we have vomiting of large quantities of fluid matter containing flocculi of undigested food with the presence of organic acids, yeast, and sarcina, together with the physical symptoms, a mistake in diagnosis is wellnigh impossible.

Prognosis.—This depends upon the cause almost entirely. In malignant or cancerous disease of the stomach with consecutive dilatation practically nothing can be done but to ameliorate the patient's condition. The treatment is purely euthanasic. In mechanical obstruction not due to malignant disease, great improvement may result from intelligent treatment of the disease. In cases where the atrophic condition of the muscularis results in fatty degeneration, we can do very little more than ameliorate. It is in the cases of moderate dilatation that the prognosis is excellent, and probably in no field of medicine does treatment offer such a certain chance of improvement and possible cure.

Pathology.—The stomach is enlarged, its shape much distorted, its position in the abdomen changed, and its capacity greatly increased.

In the primary stages of dilatation we may have a muscular hypertrophy, especially in the young. In this condition the muscular fibers are normal, but the interspaces between the individual fasciculi are enlarged and traversed by delicate bands of connective tissue, and the ducts of the glands are forced apart and separated by wide intervals instead of lying close together, as they do normally. The result of this pathological anatomy is that digestion becomes weakened, and, as the muscular activity lessens, secretion and absorption are imperfect.

Treatment.—General hygienic treatment is of great importance in the management of these cases. I insist always, where it is within the range of reason, that patients take at least one short walk during the day and in the fresh air. These sufferers

should be plainly told that during the remainder of their life they must avoid committing dietetic errors, and the taking of too much medicine "for the stomach," and in particular avoiding indigestible and heavy food, for nothing so tends to aggravate this disease and bring on a relapse as improper food or over-repletion of the organ. All food must be in a concentrated and readily assimilable form, and small quantities only of water must be drunk.

Diet.—If we have to deal with vomiting we may give a mouthful of milk immediately followed by a spoonful of shaved ice. If there is no vomiting or if this becomes better we may use scraped beef, a small piece of broiled chicken, a little piece of dried toast or toasted cracker.

In two or three weeks, if improved, lean beef without coarse fiber may be added, together with some fresh vegetables, as young peas, soft parts of the asparagus, tomatoes, dry bread, lettuce, cress, and simple starches such as sago, macaroni, rice, tapioca, vermicelli.

Later we may add boiled or broiled oysters, soft cooked eggs, stewed or baked apples or pears without sugar, and orange juice. Positively no food should be taken between meals. *Avoid* starchy food and sugars, old corn, old peas or beans, fats, butter, oils, salt, beer, effervescing drinks, red wine, thin soups, milk, water, tea, coffee, light or diluted alcoholic drinks.

Watch weight and be guided by loss or gain of flesh. If liquids are given it should be at frequent intervals in tablespoonful doses. If liquids disagree we may use *Jürgensen's modification of Schroth's dry diet*, giving the patient as many dry rolls as he can eat, together with one-third or two-thirds of a pound of lean meat and a pint of light claret wine. Every third or fourth day water drinking is permitted in small quantities at short intervals. Before cure fluids are gradually withdrawn and after it gradually increased. Duration of treatment, four to six weeks. If *hyperchlorhydria* exists we will have to modify the above diet by using plainly cooked meat, either roast, boiled, or broiled. Soft boiled eggs and milk with a tablespoonful of lime-water to the pint. Koumys or Koumysgen may be taken. Very little liquid, never more than one wine-glassful, especially at meals. Patient allowed to drink half a wine-glassful of water *in sips* every three-quarters of an hour between meals or may use an enema of water to satiate the thirst. He must avoid salt, and have food cooked without it; take no pickles, spices, mustard, sauces, horseradish, or pepper. No spirits, wines, liquors, tea, or coffee. The time between breakfast and lunch must be four to five hours and between lunch and dinner six hours. If the stomach is irritable the meals may be lessened in quantity and given four times daily.

DUJARDIN-BEAUMETZ suggests a diet, which consists of milk, dairy products, and eggs; thick purees of vegetables in a fine state of subdivision, subdivision being inimicable to fermentation, since every particle comes in close contact with the di-

gestive fluids; scraped red meat may be added later, but all fat, blood-vessels, and fibrous tissue must be removed and the meat be well cooked. If, in spite of this, slight fermentation occurs, utilize lavage.

BOUCHARD's diet consists of two meals daily separated by nine hours, occasionally a third. Morning meal: a boiled egg, some stewed fruit, no bread, no fluid. Evening meal: cold meats, well-done with no fat; or hot meat stewed, in preference to roast or boiled; fish, soft-boiled eggs, eggs in milk, milk preparations in more or less solid forms, rice in milk, meat juice, vegetable purees, a little cheese, and stewed fruit. One and a half pints of hot water during the day between meals.

In extreme cases nutrient enemata or gavage following stomach washing may be used. To this end meat-juice, meat-powder, Carnrick's beef peptonoids, Bush's bovine or Mosqueras beef meal (P. D. & Co.), and as a return toward healthy diet for this condition we may use Leube's table.

LAVAGE.—This portion of the treatment is considered by many the sovereign remedy, and at present it is so well understood that very little is written concerning its technique. It should be continued until the water returns clear and free from all fragments of food, but the fact that the water returns clear from the start should not prevent us from continuing it for a short time, as it may suddenly become turbid, due to the emptying of some or one of the dilated pouches of the stomach. There are many advantages in lavage, but in its use we should avoid robbing the patient of any nutriment, and for this reason it should not be used sooner than six or seven hours after the principal meal. Its use is made more valuable by concluding with an antiseptic solution, preferably boric acid. Lavage frequently aids in the production of stools, and I have known persons to have a diarrhea following its use who had been constipated for years. There is scarcely any other place in the whole therapy of diseases of the alimentary tract where we can obtain such rapid and perfect relief as by lavage in dilatation of the stomach. Yet I do not believe that lavage alone will cure any case of dilatation of the stomach. MARTIN, in his excellent work, suggests using boiled water with boric acid dissolved in it, or potassium permanganate, or sodium bicarbonate, washing out the stomach seven hours after a meal, preferably breakfast, which has consisted of a little bread and milk or peptonized milk, or a scraped beef sandwich and a cup of black coffee.

MATHIEU simply evacuates the stomach once a day and washes only two or three times a week. The advantages which I have shown in a new gastric instrument devised by me are apparent when we come to the treatment of dilatation of the stomach, as by its means we are able not only to evacuate the stomach, but wash it out, spray it out, or apply intraventricular faradization or galvanization. This instrument is fully described in a paper to appear shortly.

MASSAGE.—Massage is an excellent remedy, given two to three hours after meals in one or two ways. In the first the patient lies upon the back with the legs flexed and the abdomen relaxed. The masseur starts in the left hypochondriac region and by gentle, deep manipulation, endeavors to force the food toward the pyloric orifice.

This method should not be used longer than from five to fifteen minutes. The second method is that of auto-massage, in which the patient endeavors in the same manner to move the food.

The third method is that known as mechanical massage, and a revolving kneader is used, lifting and manipulating the stomach in various directions.

ELECTRICITY.—This may be used in several ways. *Faradism* is the form I consider the best, and the intraventricular the most effective. To obtain the best results the stomach is first cleansed by means of the stomach-tube and one-half to three-fourths of a pint of water introduced, and the electrode is slipped into place. The current should be strong enough but not painful, and should produce ventricular movements. The indifferent electrode may be on the abdomen, but a good way is to apply a large pad to the abdomen for three minutes and then a small electrode over each cervical sympathetic for one minute and over the cilio-spinal region for another minute, thus bringing not only the musculature of the stomach but the nervous apparatus as well under the influence of the current.

The frequent application of a weak current is better than a stronger one at long intervals. Faradization in my opinion has a specific action in restoring and increasing the acidity of the stomach and at the same time restoring tonicity to the lax muscular fibers and is of value where the secretion of gastric juice is diminished. The *galvanic* current internally applied increases the quantity of the secretion, and the intermingling of the two currents by a De Wattville switch is an excellent method to overcome the difficulties here presented. *EINHORN* claims that absorption is considerably accelerated and that all atonic conditions of the cardia and pylorus which are accompanied by large quantities of bile in the stomach are benefited and relieved by this treatment together with any gastralgic tendencies. External galvanization and faradization are of secondary value and should be used only in those cases which refuse the internal method. Heavy *static* sparks to the epigastrium, liver, colon, and sigmoid flexure have certainly in my experience assisted in evacuating the stomach contents.

Insulation is of great assistance in the relief of the nervous symptoms of the disease.

HYDRO-THERAPY.—This agent may be applied locally and generally. Local wet compresses to the stomach may assist in preventing the nausea and lessening the intense discomfort and uneasiness. But it is as a general agent that hydro-therapy is of much use. Its general action in improving the physical condition of the patient, in hardening muscle, increasing tone, in reducing the neuropathic

tendencies and increasing and broadening the nerve force, in stimulating secretion and improving the appetite, is too well known for me to dwell upon. The hot-air bath, followed by the rain-bath, the jet, fan, or shovel douche, or the use of the Schottich douche greatly enhances the effect of other remedial measures.

EXERCISE.—There are many exercises that will assist in the development of the muscular power of the stomach. Flexions of the body, contractions of the belly muscles, deep inspiratory and expiratory movements, rotary movements of the trunk, together with free hand or active movements of the arm, constitute the usual prescription for such cases. Rowing is of unusual benefit. If enteroposis is present, and the abdominal muscles are very lax, a supporting bandage must be worn until the same are developed.

MEDICINAL TREATMENT.—If we have hyperchlorhydria it must be neutralized by the careful use of sodium bicarbonate. If organic hyperacidity is present with a diminution of hydrochloric acid, we may administer immediately after meals an antiseptic consisting of hydronaphtol or beta-naphtol, bismuth salicylate and sodium bicarbonate, to which may be added at will, to stimulate secretion and muscular action, nux vomica or strychnine. Papain in 2½- to 5-grn. doses is of some value, being a local sedative, a muscular tonic, and a digestive. Hydrochloric acid is also of advantage.

As antiseptics, sodium sulpho-carbolate, salol, charcoal, bismuth salicylate, and dermatol may be used. Charcoal is of advantage in 5- to 10-grn. doses, when the gases of the stomach are generated quickly, as it fixes both the alkaloid and toxic matters of digestion.

For the constipation electricity, massage, lavage, and enemata are the best. We should avoid using purgatives. If there is hyperacidity, however, Carlsbad water is of advantage, as it lessens the acidity, and certainly tends to evacuate the stomach.

In this connection carbolic acid and creosote are said to be of advantage. For the nervous symptoms we may use the bromides, valerian, and the monobromate of camphor, but they must be continued for a very short time, as they reduce muscular tone. For the vomiting we may use the following:

Menthol	2 grn.
Alcohol	q.s. ad fiat sol.
Aq. dest.	6 oz.

A tablespoonful for a dose.

For vomiting and pain, *ROSENHEIM* suggests nitrate of silver in small doses; the first dose in the morning while fasting, and the others after breakfast and dinner. *EWALD* uses the following prescription:

Cocain. Hydrochl.	4½ grn.
Chloral. Hydrat.	45 grn.
Aq. Menth. Pip.	14 dr.
Aq.	26 dr.

Tablespoonful for a dose.

Later, tonics are useful.

In conclusion permit me to say that it is not through any one of these methods that success is

found, but by a rational combination of them all; and it is to their intelligent application that a successful termination may be expected. No one should fail to utilize all the methods of treatment within his reach to overcome this trying disease.

CLINICAL LECTURES

VARIETIES OF STRICTURE OF THE RECTUM, WITH APPROPRIATE TREATMENT*

By CHARLES B. KELSEY, M.D.

Professor of Surgery at the New York Post-graduate Hospital

GENTLEMEN: It happens that to-day we have an interesting group of cases of *stricture of the rectum* to be operated upon in different ways, each according to its nature and extent, and it is possible that from this rather unusual combination you will be able to carry away a clearer idea of the whole subject than you would from any individual case.

CASE I.—But first we will attend to this case of *pelvic trouble*. The woman on the table comes to me for pain in defecation, but there is no disease of the rectum itself. She tells me she has been married only a short time, had a miscarriage three months ago; since then has had a constant discharge *per vaginam*, and great and constant pain in the left ovarian region, particularly aggravated by having a passage from the bowels.

I will examine her as she is under ether in the dorsal position with feet elevated and tell you exactly what I think I feel. You perceive that the vagina is filled with gauze preparatory to operation, but as I always make my diagnosis of pelvic trouble by rectal examination when possible in preference to vaginal touch, I will examine by conjoined touch *per rectum*.

The uterus is normal in size, retroverted, freely movable. The left ovary and tube are perfectly normal. The right ovary is close to the right horn of the uterus, and is double the size of the left. I can find nothing the matter with the corresponding tube, in fact cannot distinguish it by touch. The question then is, What is this enlargement of the right ovary, or in the place where the right ovary should be? Are ovary and tube matted together, as I suspect, by inflammatory deposit? Is the tube obstructed? We shall soon know. I make this examination and give you the result as much for my own sake as yours, because here we have a chance to prove it before you all. It may be far out of the way, and it is true that one never quite knows what he will find in the abdomen till he has opened it; but the way to perfect one's self in pelvic touch is to do exactly what we shall now do.

First, on account of the endometritis which unquestionably exists, we will curette the uterus, and drain it with iodoform gauze. We now open the

abdomen by a two-inch incision as close to the symphysis as the danger of wounding the bladder admits. With the index and second finger passed into the abdomen I easily bring the uterus out of the wound. You see it is normal. The left tube is traced to the corresponding ovary, and these are both brought into view. You perceive they are perfectly normal. The tumor on the right is next brought out and with it the tube. The latter is normal, the ovary is about twice the natural size, and contains several small cysts. There is much less disease, in fact, than I expected from the amount of ovarian pain. The cysts are punctured with a needle, the contents allowed to escape, and the organs replaced.

And now the question arises, Why so much pain? because we have operated in the hope of relieving a very severe pain which this woman says has unfitted her for work. Had there not been a distinct tumor I should not have operated, but the disease found does not explain the suffering. It will have to go on the record as ovarian neuralgia, with exploratory laparotomy, because hardly more than an exploration has been done; and we shall at least have the satisfaction of knowing that there is one woman who has been left with two fairly healthy ovaries.

CASE II.—Here we have a man in the prime of life, large and muscular, whose rectum is almost closed by *carcinoma*, and this is the first form of stricture I wish to show you. It is absolutely incurable. Unless we do something operatively for his relief he has only about one year to live, but with what we shall do he may have three, four, or even more years allotted to him. Attempt to cure this patient by removal of the disease would not be justifiable, for the disease has gone too far. It is no longer cancer of the rectum, but is now cancer of the pelvis involving rectum, perirectal cellular tissue, base of the bladder, sacral glands, and the glands in the inguinal regions. The limits within which it is proper to attempt cure by excision have become pretty well marked, and this is far beyond them. The disease would return in this case before the wound could heal; in fact, the disease could never be removed. We shall therefore open the abdomen, bring out the sigmoid flexure, fasten it into the incision, and open it, thus forming an artificial anus which we hope and confidently expect will prolong the patient's life at least two years.

Those who were here at the commencement of the session may remember that I told them I proposed this winter to return to the old method of completing the operation of colostomy at one sitting, instead of postponing the opening of the gut forty-eight hours after stitching it to the abdominal incision. We have done so thus far in some dozen cases without accident, and in this way we save the shock to the patient of what, to him, amounts practically to a second operation. Moreover, if this can be done with safety it saves much time for the surgeon in his out-of-town cases. In operating away from home it is awkward to have to wait forty-

* A clinical lecture at the New York Post-graduate Hospital.

eight hours for adhesions to take place, and equally unnecessary to make a second journey to open the gut.

Instead of taking the piece of sigmoid which presents immediately under the incision, I am pulling up the gut from the pelvis to get it gently taut in this direction. This is only because in my last case I had, what I have never had before (but have always expected sometime to have), an amount of prolapse of the gut which rendered a second operation absolutely necessary for the comfort of the patient. Strange to say, also, the prolapsed gut was the part between the artificial anus and the rectum. In that case, a few weeks after the first operation, the lady was again etherized, the abdomen was opened by an inch incision, prolonging the original one downward, the lower of the two orifices of the gut was dissected loose from the skin, the gut was completely cut across, the lower end invaginated and dropped into the pelvis, and the incision closed.

The only difference between the technique of the operation as done at one sitting and the other, is in the care and closeness of the suturing. This requires closer stitching to close off the free peritoneal cavity entirely than is the case when we allow a couple of days for adhesions.

Under a stream of water we now cut away the exposed part of the gut, as you see. Three or four small vessels have to be secured, and the operation is complete. In a very few hours the two peritoneal surfaces in contact will be agglutinated by plastic exudate and the small spaces between the stitches completely closed.

CASE III.—Here we have an entirely different stricture—an *old non-malignant ulceration* of the lower three inches of the gut extending upward from the anus to a point at which the gut is almost completely closed by contraction.

At once I am asked if this is a syphilitic stricture? It is what, for many years, has usually been called syphilitic, but which I believe to be a simple destructive and proliferating non-syphilitic inflammation.

Now this stricture is just as incurable by any kind of local or constitutional treatment as the last one. It will not kill as quickly, but almost as surely, by simple exhaustion. This has existed for years already, the woman has been tortured by bougies, and she is now willing to submit to anything.

Formerly I preferred colostomy in these cases, as in the last, but as my own statistics for extirpation have improved, I have come to apply it almost invariably to this class of strictures. The danger is greater, but where a good anus can be formed in the perineum, as in this case, the results are more satisfactory. We shall therefore do a modified Kraske.

And now, gentlemen, a word of advice. Ordinarily, you know that I do not advise you not to do operations, and it may be that before we have finished this one you will have no desire to attempt it on any patient of your own. But with regard to it I can only say it is by far the most difficult operation manually of which I have any knowl-

edge, and that its mortality depends entirely upon the skill with which it is done. As we progress you will see that all my efforts are devoted, first, to avoiding any soiling of the extensive wound and peritoneal cavity with the contents of the bowel; and secondly, to avoiding loss of blood and delay. If you can keep your wound aseptic and are a rapid and skillful operator, your patient has a good chance; if not, she will barely escape with life.

This form of extirpation which is practically an amputation and in which we must work from below upward in great measure, is far more difficult than the classical Kraske where we aim at once to open the peritoneum and get above the disease. You see the diseased bowel is removed; and neither the vagina nor the peritoneum has been opened. You saw also a very free hemorrhage when the anal portion of the gut was dissected out, which I made no effort to stop until all cutting was finished, when a towel was pushed into the wound. This is the secret of avoiding loss of blood. Perhaps in this case we lost six ounces. Had I stopped to try and secure each vessel as cut, the patient would be completely exsanguinated.

We now stitch the end of the gut to the perineum, place a drain of sterilized gauze between rectum and vagina and press it well in to stop oozing, close all the incision with sutures, pack the vagina full of gauze for counter-pressure against the drain in the wound, and apply a loose dressing. The patient is in excellent condition, and the time required has been about thirty minutes—rather shorter than is usual.

Some one asks, will the patient have control of the bowels? She will have just as much control over her sphincters as a man has over his hand after it has been amputated, and no more—all statements you may see in print about perfect control after this operation to the contrary notwithstanding. Still, unless she has diarrhea, she will scarce know the difference, and will be very apt to tell you she has good control.

CASE IV.—In this case you see that the whole perineum is perforated with fistulous openings. I pass the probe into six, one after the other, and two of them communicate with each other by a semi-circular track around the anus in front, forming a horseshoe. The finger in the anus encounters a tight stricture at two inches. Here is an interesting question in pathology. Did the ulceration and stricture first exist and have the fistula resulted from that, or did a simple fistula form first, and, as a result of unsuccessful operating upon that, have all the other conditions followed? At this time it is impossible to say. Either may have been the case, but now we will try and cure the woman. With a strong, straight, probe-pointed knife, and my finger in the rectum for a guide, I do a posterior linear proctotomy; in other words, I divide the stricture freely, and all the parts below, including the anus, in the median line behind. All the fistulæ except the horseshoe are then laid open into this median incision, the horseshoe

being simply laid open, but not into the rectum, as it has no communication with the bowel. The subsequent treatment is to induce all these incisions to heal from the bottom, and to keep the stricture by subsequent dilatation from recontracting. Is this possible? Yes. And this is the only way a stricture can ever really be said to be cured, for excision is not cure any more than amputation of the leg is a cure for a diseased foot. The results are not satisfactory in the majority of cases, but in a few this treatment will succeed. It must, however, be carried out with patience and with an amount of skill which only experience can give. The great error is being too radical and in not exercising sufficient patience and gentleness.

New York; 18 East Twenty-ninth street.

THERAPEUTIC ITEMS

Soziodole in Genito-Urinary Diseases.—Prof.

SCHWIMMER (*Arbeit. a. d. Amb. u. d. Privatk. f. Ohren-, Nasen-, u. Halsleiden*, No 2, p. 57)

The author reports on the use of soziodole in various diseases of the genito-urinary organs. In acute gonorrhea a 1-per-cent. solution of soziodole-zinc, injected three or four times daily, always gave favorable results, the secretion and the pain abating somewhat more rapidly than is the case with many other known zinc preparations.

The author has used soziodole-sodium, mixed with lycopodium, as a dusting-powder in treating idiopathic ulcerous formations and buboes, and regards this odorless antiseptic as superior to iodoform.

In disorders of the bladder he has employed a 1-per-cent. solution of soziodole-sodium by irrigation and found it to have the same effect as a 3-per-cent. solution of boric acid or a 1-per-cent. solution of resorcin. In the same manner, the author incidentally states a 1-per-cent. solution may be used in the treatment of catarrhal conditions of the nasal mucous membrane, even ozena being favorably affected by it.

Dr. S. has used soziodole-mercury also in 230 cases of constitutional syphilis, employing an 8-per-cent. solution, with the addition of potassium iodide (8 parts soziodole-mercury, 16 parts potassium iodide, 100 parts water), which he injected (0.08 gme. [$1\frac{1}{4}$ grn.] pro dosi) into the gluteal muscles once a week. In 31 cases, with primary effects of recent date without general phenomena, the glandular induration was reduced to a minimum, while the glands themselves were much diminished in size by five to eight injections, and the simultaneous local use of mercurial plaster, or of soziodole-mercury in powder form with starch (1:10), or as a salve with vaselin (1:20). Secondary phenomena were observed in but eight of the above, and they were either affections of the mucous membranes or cutaneous exanthemata.

In 125 cases, with secondary phenomena in the skin and the mucous membranes, three to eleven injections (seven on an average) sufficed to effect a cure. The exanthemata began to vanish usually after the second injection, while the plaques and excoriations, which were treated additionally with silver nitrate and astringents, generally lasted longer.

The gumous and ulcerous skin diseases proved the least adapted for treatment by injections; in

these troubles the injections had to be replaced by potassium iodide after the third week.

None of the unpleasant phenomena which usually follow upon injections of other salts were ever noticed. The local painfulness was slight and disappeared rapidly; the infiltration was inconsiderable and but little painful, and 1200 injections did not occasion a single abscess. Stomatitis and gingivitis were noticed in several cases after the second injection, and this proves the prompt absorption of the remedy.

The author concludes by saying that he considers soziodole-mercury one of the best anti-syphilitic remedies he has ever tried, and which, in the form of subcutaneous injections, is unsurpassed by any other medicament employed hypodermatically.

Dr. JANOVSKY is quoted as having treated 78 patients with soziodole-mercury injections, all of whom were cured. The greatest number of injections given to one patient was eight, and relapses occurred in but three cases. Considerable pain was usually felt about two days after the injections, but disappeared within two to three days later. The principal advantage of soziodole-mercury, which Dr. J. is quoted as emphasizing, is the circumstance that it does not occasion the numerous unpleasant symptoms so frequently produced by other (especially insoluble) preparations.

Paraldehyd as a Sedative and Hypnotic.—D. W.

AITKEN (*Brit. Med. Jour.*, 1896, No. 1835, p. 527)

According to the author, paraldehyd is a wonderfully innocuous drug, and where large doses are needed it is well tolerated; furthermore, it is an exceedingly efficient calmative and hypnotic.

Two cases are cited in detail to emphasize these points.

Case 1 was in an aged female, melancholic, and with suicidal tendency; she was treated with paraldehyd after numerous other sedatives had been tried with even injurious effects. For several months the patient took more than 1 fl. oz. (once 4 fl. oz.) in the 24 hours. The medicament not only gave great relief, but proved a most suitable exhibit, for the patient recovered and remained well for three years.

The second case was in a female aged 19 who had been epileptic from childhood. About two years ago the fits became more frequent, often occurring two or three times a week. Some improvement followed the treatment of these affections. Still the convulsions occurred weekly. One peculiarity about the case was the prolonged aura. In studying this case the question of warding off the fits forced itself upon attention, seeing that so long an interval of warning was given. The idea of producing sleep then suggested itself, but how to avoid the danger of sedatives presented itself as a most serious difficulty. The favorable experiences of paraldehyd made one hope that the obstacle could be avoided. The result was most surprising. After the first dose of 15 min. (1 c.c.) the patient was sound asleep in five minutes; and having enjoyed some rest, she awoke refreshed and with all disturbance gone. She still has the threatenings, but even they are not so frequent. She has, on several occasions, had intervals of one month. This fact, coupled with the much better general condition of health, shows that while securing the above-mentioned immense advantage no bad results accrue from the treatment. For more than a year she has had no fit except on one occasion, when no paraldehyd was at hand. She never needs to take more than 30 min. (2 c.c.).

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EVOLUTION AND REVOLUTION IN GYNECOLOGY.—

From all sides the cry arises that an unjustifiable amount of operating prevails in circles gynecological. The retiring and the incoming president of the American Medical Association, in particular the latter, characterized the *furor operativus* in no uncertain terms; indeed, it is questionable if righteous indignation did not call forth utterances stronger than the facts justify. While it may be true that in the hands of certain men unnecessary mutilation is resorted to, we question if imaginary lacerations of the cervix are sewn up or if lacerations are designedly provoked in order that the sewing process may be resorted to. Such statements smell of the musty past when certain English supposed or rather would-be gynecologists acted the part of the Pharisee in exclaiming, The Lord be thanked we are not as our American cousins are in the gynecological line! To condemn practices is one thing, to erect imaginary practices for condemnation is another. Wild statements as to unnecessary operating are not going to put a stop to them. The question must be envisaged from a calm and deliberate standpoint, and where the evil exists the blame should be placed.

Without doubt this changing and changeful specialty is overdone, and without question the many raw recruits who at once after graduation rush into it are casting discredit upon it; but it is also true that the men who, from years of study and of practice, have earned the title of gynecologist, while here and there they may be experimenting in the line of devising new and better operations, are not entitled to the onus of the charge of unnecessary operating. Indeed, since the parallel has been drawn by a general surgeon, is it not likely that he is the one who, anxious to extend his specialty beyond its proper limits, is doing the unnecessary operating? It has been lately said with great truth by a distinguished gynecologist that the proper way in the future to practice gynecology was through general surgery, since the general surgeon was no longer content with his specialty, but was sewing up cervixes and removing tubes and ovaries at even a livelier rate than his brother, the gynecologist. Similarly, and perhaps in self-defense, we find the gynecologist operating on every organ contained within the abdominal cavity, and certain ones, possibly, do not stop short of amputating a limb. Sometimes the thought is uppermost, "Is gynecology, as a pure specialty, on the wane?"

The truth is that the specialty is still in process of evolution, and associated with this there is constantly evident revolution upon revolution. A few years back and there existed a medical gynecology. Now it has been relegated to the limbo of things forgotten if not prohibited, owing to the scornful manner after which embryo operators, chiefly, refer to colleagues who believe and who know that there can sometimes be relief, if not anatomical cure, short of operating. The day of the pessary and of the tampon and the applicator has passed, but who can say that it will not witness a resurrection? The pendulum swings first to one extreme and then to another. The popular clinic to-day is that where the attempt is to perform as many operations as are at all feasible within the space of an hour, certain shining lights even asking the time before they begin and at the end of the operative procedures turning to their class and exclaiming, Presto! One man harps eternally on Alexander's operation, oblivious of the number of instances of hernia following an operation which has been performed for the anchoring of a movable retrodisplaced uterus. The remedy may be worse than the disease! Another finds the symptomatology explained amply by the presence of a kidney which moves a few centimeters out of its bed, and often determines that the appen-

dix vermiformis stands in causal relation to the movable kidney and the symptomatology of uterine disease. Still another suspends the uterus *per abdomen* and another *per vaginam*, and another practices legerdemain by stripping the uterus out of the vagina without the ligation of artery. Another, still, contends that all operating should be done by the vagina, while his colleague, of equal repute and possibly of more experience, pleads for the selection of the abdominal route. Oblivious are this latter class of the fact that there are indications and limitations to both routes, and, further still, that the effort to do the impossible by the vagina ceases to be surgery and becomes butchery. Witness the tugging and the pulling associated with attempts to drag a large adherent uterus out of the vagina, when careful dissection from above, under the guidance of the eye, will enable the operator to proceed after a surgical fashion, even though he may not be riding a hobby and may be working contrary to the dictum of some shining light whose operative record is a wonderful one, even if his ultimate results will only be known in the great Hereafter. No wonder that the pure surgeon, if there be such, holds up his hands in horror at this evolutionary and revolutionary process and complains that there is over-operating and reckless operating. Look at the other specialties, however, and the same bias in thought and action prevails. The muscles of the eye, if cut, will cure many ills according to one man; according to another the turbinated bones must be scraped and cut; and still another washes out the stomach for the cure of the same ills; and so on throughout the list.

For these evils there is a patent explanation, and this is the rapid making of specialists. The students are badly trained at the schools, in that the body as a whole is not dwelt upon sufficiently, to the exclusion of the study of the special organs. The aim of our educational institutions should be to turn out, not specialists, but general practitioners; and the young graduate should be discouraged from entering a specialty until after a prolonged course of training as a general practitioner. It is questionable if legislation, looking toward the prohibition of entrance into a specialty before a number of years after graduation, would not be a good thing in the line of the securing of better specialists. This would tend to stop illegitimate operating, for that man who has carefully watched disease from the standpoint of a general practice is not so apt to rush to extremes in the treatment of a special set

of organs as he whose mind is of the immature type necessarily the property of the young graduate.

Above all the specialties has gynecology been noted for its extremes, and one of the most necessary lessons for both surgeon and gynecologist to learn is that of avoiding the falsehood of extremes. Without experimentation there can, of course, be little progress of the true sort. To determine the proper sphere of an operation, its strict utility, it is not, however, necessary or advisable that every embryo gynecologist should start as an experimenter. There is little glory after all in having an operation called after one, especially in these days, when the lifetime of many an operation is shorter than that of the moth's. To hold fast to that which has been proved as good, and to shun extremes,—these are mottoes which the gynecologist should ever wear, in order that such strictures as were passed at the Atlanta meeting may be not only undeserved but also uncalled for. The specialty has, indeed, accomplished wonders in a decade toward alleviating suffering, curing disease, and saving life, and, to tell the truth, the general surgeon who ventures to criticise the enlightened gynecologist should be frank enough to admit that in much which he does to-day he can thank one or another gynecologist for the lesson taught. The future is, doubtless, replete with triumphs for the gynecologist, but a halt must be called upon some operations and operators, and cold water must be dashed on some ambitious lights, and the mania after a record must be cured, and, lastly, statistics must be of the type which go to make the honest record, or the evil will predominate over the good, and, as the new woman progresses toward evolution, she will seize upon the rash operator and the blatant gynecologist and apply that revolution to him which the distinguished speakers at the meeting of the American Medical Association claimed was being done by her!

REPORT ON MORBIFIC AND INFECTIOUS MILK.—The Public Health Reports, Vol. XI, No. 7, contain extended abstracts from the advance sheets of Drs. BUSEY'S and KOBER'S report on morbid and infectious milk. This is such a complete and exhaustive exposition of our recently acquired knowledge upon this subject that it is worthy of an extended notice.

The first section of the report deals with milk which is objectionable by reason of abnormal color, odor, taste, or consistency, reviewing minutely the causation of such changes by the presence of special micro-organisms as well by the influence of certain

articles of the cow's diet upon the lacteal secretion. The filtrates of milk sediments exhibited by Prof. RENKE, of Halle, at the International Medical Congress of 1890, were so disgusting that Americans were not disposed to believe their existence in American milk, but the examination of 24 specimens of milk collected about Washington showed even a larger quantity, amounting in the maximum specimen to 180 milligrams of undried filth per quart. This is composed of epithelial *débris*, cow-hairs, excrementitious matter, vegetable fibers, dust particles, bacteria, fungi, and spores. The pertinent comment is made that it is not at all likely that the average American housewife would tolerate anyone throwing that amount of filth into her milk-pitcher, yet practically we suffer it to be done, and there is no law to prevent it.

Due credit is given to Professor VAUGHAN for his valuable contribution to science in the discovery and isolation of tyrotoxicon in poisonous cheese, ice-cream, milk, and cream-puffs.

The following sections deal with milk which is rendered unfit for use by improper food and care of the animal, and that which has acquired injurious properties while the animals are being treated with strong mineral or vegetable agents, or which may have been accidentally swallowed; and especial attention is drawn to the danger in allowing animals to wade in filth and polluted streams, or to feed in pastures where, as in the vicinity of Boston, the grass reeks with sewage filth left upon it by the receding tides.

Milk may further be morbid as the product of a diseased animal. Such dangerous conditions may be: inflammations of the udder and teats (garget); gastroenteric diseases; fever, especially puerperal and other septic fevers; foot and mouth disease (eczema epizootica), cowpox, anthrax, pleuropneumonia, rabies, tetanus, and tuberculosis. In many of these both direct and indirect evidence has been adduced to show that septic germs may be present in the milk of the affected animal. The attitude of the uneducated dairyman, for whose instruction this report is doubtless ultimately intended, is shown by the quoted remark of an English dairy-boy that "They could not drink the milk themselves and had sent it to London, but they hoped the poor people there would not suffer."

Commenting on the fact that many epidemics of scarlet fever and diphtheria in Great Britain have been attributed to a milk supply from animals suffering with local affections of the teats and udder, and the controversy which followed Dr. KLEIN's discov-

ery of the so-called "micrococcus scarlatinæ" in the tissues of the human scarlatina patient and the diseased cows at Hendon, the authors say "while there is no positive proof that there is a disease in the cow which is communicable, as scarlet fever or diphtheria, to man, there is nothing strained in the assumption that . . . we are dealing with a streptococcus or staphylococcus infection. . . . When we further consider that toxins may and do produce a scarlatinous exanthem we feel fully warranted in declaring that in all epidemics of scarlet fever and diphtheria, which were traced to milk from cows suffering with some inflammatory lesions of the udder or from puerperal fever, we have typical instances of a streptococcus and staphylococcus infection, and we thus offer for the first time, so far as we know, a rational explanation of a question which has engendered so much heartburning among English pathologists."

Speaking of tuberculosis the report says: "When it is remembered that one-seventh of all deaths are due to tuberculosis, and that the identity of bovine and human tuberculosis has been settled beyond question, we need not wonder that much attention has been given to the study of milk from tuberculous cows." German statistics give an average of fully 20 per cent. of the animals at German abattoirs as tubercular. In this country, Dr. ERNST's recent collective report from 39 veterinarians, representing 17 States, indicated that among 165 herds, representing about 3000 animals, 18 per cent. were positively tubercular, and that, in addition, 8 per cent. were suspected. That milk from udders, which is the seat of tuberculous disease, is infective, is definitely conceded. Whether milk from animals in which the disease does not involve the udder may contain bacilli is still mooted, but the preponderance of evidence, derived from inoculation experiments, seems to show pretty decisively that such is the case. A sufficient number of instances of direct infection by tuberculous milk are now on record to render this question one of immediate and vital importance.

The final section deals with milk which acquires infective properties generally only after it leaves the udder of the animal: "Numerous instances have been observed in which outbreaks of typhoid fever, scarlet fever, and diphtheria, by their sudden and explosive character affecting families living in streets or localities supplied by the same milkman, naturally pointed to the milk supply as a common cause." "We know now that disease germs may not only survive, but in many instances actually

proliferate in milk, and it is not a difficult matter to point out the many ways by which they may gain access, especially when some of the employees connected with the dairy or farm are also engaged in nursing the sick, or are suffering themselves from some mild infection while continuing their duties, or are convalescents from the disease." The authors have tabulated no less than 138 epidemics of typhoid fever, 74 epidemics of scarlet fever, and 28 epidemics of diphtheria spread through the medium of the milk supply. The collective evidence of this report, together with its 240 tabulated epidemics, raises anew the question of sanitary inspection, which we trust, like Banquo's ghost, will not down until all herds and dairies are brought under the supervision and control of the local or State authorities.

THE RESPONSIBILITY OF HOLMES.—In the execution of H. H. HOLMES, at Philadelphia, on May 7, was terminated the history of one of the coolest criminals known in police annals, and one of the most perfect examples of absence of moral sense to be found in morbid psychology.

An attempt to determine the nosological place which HOLMES should occupy in criminal anthropology meets with considerable difficulties. The history of his life is mainly conjectural, since the field of his activity was constantly changing and his own statements and confessions are contradictory and untrustworthy. His life began unclouded by ancestral sins or defects; his youth was passed amidst quiet and respectable surroundings; yet at twenty-five he was a bigamist and shortly after this built his famous castle. How many deaths are to be laid at the door of HOLMES, it is impossible to say; the first indictment was for the murder of PIETZEL, and for this crime he was hanged. It is always easy to believe, without complete evidence, anything of a man who is proved to be as heartless as HOLMES was proved to be; and to attribute to the hands of such an offender contemporary crimes which remain mysterious and unexplained. In HOLMES's case, however, there is no reason to believe that any human life was regarded by him as an obstacle to the success of his plans. His crimes bespeak the murderer, cunning, egotistical, and heartless.

A consideration of the responsibility of HOLMES is unsuccessful in any attempt to secure for him a moral vindication. He must be classed with the sane criminals. Inquiry as to the responsibility of offenders, according to the modern conceptions of criminal anthropology, embraces a study of the

physical and mental characteristics, hereditary or original, of the individual under examination. HOLMES was untainted by morbid ancestral influences, and presented, as far as we have been able to ascertain, no physical stigmata of degeneration.

We reproduce the measurements which were taken at the time of his arrest and which have kindly been sent to us by R. J. LINDEN, Superintendent of Police, Philadelphia, Pa.:

Height, 1.71 meters; outstretched arms, 1.79 meters; trunk, 88.3 cm.; head, length 19.4 cm., width 15.3 cm.; right ear, 6.4 cm. long, 3.4 cm. wide; left foot, 26.4 cm. long, 11.3 cm. at its middle; left little finger, 8.9 cm.; left forearm, 45.7 cm.

The forehead was high and narrow, without peculiarities; the profile of the nose showed a rectangular ridge, with elevated base and shallow root. It was of medium length and narrow in breadth.

The psychological characteristics which marked him as different from normal man consisted in egotism, inordinate love of money, and an absence of the sense of moral obligation. HOLMES's vanity has ever been remarked as one of the prominent features in his character. His desire was to impress his own personality and to attract attention by the individuality of his actions. This feature, which amounted to egomania, was well shown during the course of his trial.

His desire for wealth and personal profit, at any cost, all his crimes demonstrate. All were undertaken either with the object of gain or else to conceal enterprises which had been undertaken with that end in view. His greed, combined with the indifference he ever showed to the welfare of those who came in his path, was the secret of his criminal career. And unfortunate indeed were those who fell in with him; for not only was he bereft of all idea of right and wrong, but his absolute lack of pity or of any of the instincts of humanity made it indifferent to him whether he ruthlessly betrayed a woman or murdered a child. Such psychological features are entirely inadequate to absolve him from the responsibility of his acts. HOLMES's career was essentially that of the voluntary sane criminal.

Too Much Discipline.—A most useful institution in France appears likely to fall into disuse owing to a system of over-strict regulation. This institution is a convalescent home given to the French Government for the use of officers by Mme. FURTADO HEINE, and endowed by her with an income of £2400 yearly. It was intended to provide ease and comfort at a small expense for officers recovering from illness; but as a sort of military discipline is maintained, the first invalids to arrive found the conditions so uncomfortable that they left it.—*The Hospital*.

GENERAL MEDICINE

Department Editors

WILLIAM CHARLES GUTH, M.D.

and

HENRY TURNER BROOKS, M.D.

Collaborators

ADOLPH ZEH, M.D., ADOLPH BARON, M.D., JOHN HOCH, M.D., WILLIAM VISSMAN, M.D., WILLIAM Y. FINCH, M.D., GEORGE W. BLANCHARD, M.D.

Nutritive Value of Albumoses.—DE BUCK (*Wien. med. Presse*, 1896, No. 6)

The author employed somatose in the treatment of seven cases of typhoid fever. Three of the patients were adults between 21 and 24 years of age; four were children between 6 and 10 years. The daily dose was between three and four teaspoonfuls. This was administered in weak bouillon or diluted milk, in quantities not exceeding an amount sufficient to make a saturated solution. The administration was continued during the whole course of the disease and convalescence. Thirst was appeased with boiled water, to which, after cooling, about 4 per cent. of saccharose was added. In six of the patients the disease ran a perfectly normal course of average duration—about 22 days. The author was convinced that, in a general way, the temperature was less elevated by this method of treatment than by the exhibition of comparatively large quantities of bouillon and milk as were formerly administered in typhoid fever.

Diarrhea was lessened, and in no case were disagreeable symptoms from the stomach and intestines observed. In two cases there was a slight tendency to constipation.

In the third week one of the adults, a male, 23 years of age, developed pleuro-pneumonia, which resulted fatally. The patients did not develop a dislike for the somatose, even though it was continued for a long time, and the appetite was rather increased than diminished. The patients' strength was retained on this almost exclusive diet of somatose, and convalescence was relatively short. When the patients were gradually put on solid diet, no tendency to relapse was observed. It may also be remarked in this connection that six cases which pursued a normal course to recovery received no other medication. The author also reports several cases of other affections where the nutritive value of somatose is equally apparent.

Prevention of Tuberculosis by Feeding.—EPHRAIM CUTTER, M.D. (*Dietetic and Hygienic Gazette*, XII, 1896, p. 207)

Tuberculosis includes (1) pulmonary consumption, (2) intestinal tuberculosis, (3) tuberculosis of the joints, and (4) visceral tuberculosis. The author defines it as "partial paralysis and interstitial death." Of 1026 healthy swine, fed on sour whisky-distillery slop, all were sickened and 250 died. Autopsies on 104 showed tubercle bacilli. In pens adjoining these 1026 swine, at the same time, there were 600 healthy swine fed on good, sweet maize. None contracted tuberculosis. Hence the proposition that if healthy people are fed on proper food they will not contract tuberculosis in their vitiated air-food. Tuberculosis prevails in those whose food ferments in the intestine and forms acetic acid. When the mycoderma aceti is confined to the alimentary canal intestinal consumption occurs. The intestinal epithelia prevents the vinegar yeast from entering the blood.

But when the epithelia are paralyzed by CO₂ gas or by alcohol found in the canal, then the said epithelia lose their power of resistance and allow the mycoderma aceti to penetrate and enter the blood. They can be detected here by the microscope a year before lung necrosis occurs sufficiently to be recognized by auscultation and percussion.

The pulmonary apices are favorite sites for tuberculosis, because (1) they are most accessible to cold; (2) the lung capillaries contract on the application of cold; (3) in contracting they catch and detain collections of mycoderma aceti; (4) these form emboli, which obstruct the circulation; (5) the apices are not greatly expanded, being in a comparatively inelastic part of the thorax. Tuberculosis can be prevented by special feeding, avoiding causal foods. The 600 swine avoided the sour food of the 1026 swine and did not get consumption. Men are not hogs, but they often make swill-tubs and vinegar-yeast-pots of their intestinal canals. Men can avoid foods that ferment with the *saccharomyces cerevisiae* and *mycoderma aceti*. Such are vinegars, starches, and sugars in excess, and composite foods sweetened with sugar, glucose, mattose, lemulse, and frugulose; in fact, any food that ferments with alcoholic and vinegar fermentation. Patients should be forbidden cornmeal preparations, beans, soups, sweets, pies, cakes, pickles, sauce, preserves, fruits, vegetables, greens, pancakes, fritters, crullers, griddle-cakes, salads, and mush. As relishes, celery, lemons, horse-radish, butter, pepper, and salt may be used. Hot water, clear tea, coffee, and cocoa serve as drinks. As a general rule, to prevent tuberculosis in the healthy, the food should be, by bulk, two-thirds animal to one-third vegetable. Liquids at will, save sugars in excess.

The air is filled with tubercle bacilli, or pavement epithelium invaded with bacilli or with the zoöglea of the animalized mycoderma aceti. We are more or less surrounded by aerial tuberculous bacilli. But sunlight and healthy secretions destroy these bacilli. Domestic contagiousness of tuberculosis is explained by the fact that families generally live on the same foods. Some, however, are more resistant than the others. Expand the lungs and apices with full breaths of air freshened by sunlight and purified by the winds. Eat the proper solids, semi-solids, and liquids.

Sudden Death After Lumbar Puncture.—P. FUERBINGER (*Cent. f. Inn. Med.*, 1896, No. 1, p. 1-8)

The author reports a case of cerebellar tumor in which death suddenly occurred six hours after lumbar puncture. Of 86 previously published cases in which spinal puncture was carried out, death occurred unexpectedly in four. It is worthy of note that of five cases of cerebellar tumor in which the author practiced lumbar puncture, no less than three died suddenly within 6-40 hours. In two of these cases autopsy showed tumor of the cerebellum; in all three there was considerable dilatation and filling of the lateral ventricles; in the subarachnoidal and subdural spaces of the spinal cord there was but little fluid. Tumors in the neighborhood of the fourth ventricle produce by compression partial or complete arrest of communication between the ventricles, subarachnoidal and subdural spaces. The possible cause of the sudden death after lumbar puncture, the author thinks, lies in disturbances of nutrition of the brain substance, caused by abstraction of fluid and consequent pressure exerted upon the cerebellum by the rigid margins of the depressions in the occipital bone.

OBSTETRICS; GYNECOLOGY; PEDIATRICS

Department Editor

THOMAS S. SOUTHWORTH, M.D.

Collaborators

GEORGE G. WARD, Jr., M.D., GEORGE R. WHITE, M.D.,
EDWARD N. LIELL, M.D., WILLIAM B. NOYES, M.D.

The Relation of General Disease to the Formation of Cataract in Early Infancy.—CLARENCE R. DUFOUR (*Jour. Amer. Med. Assn.*, XXVI, No. 13)

Cataract is not due to age alone, but is caused, or its growth hastened, by various diseases among which are malaria, epidemic influenza, typhoid and typhus fever, syphilis, nervous diseases, nephritis, and diseases of the heart and blood-vessels. It may appear also in infancy as a result of rachitis and pertussis. Rachitis is often the cause of the laminated cataract due to an intense disorder of nutrition in the lens. If it develops at a very early period or is intra-uterine a central cataract forms. When this adheres to the capsule of the lens at the anterior and posterior poles it contracts into a slender opacity and forms the spindle-shaped cataract. Laminated cataract appears to be cortical in character.

This form of cataract is symmetrical in both eyes, but is sometimes unilateral and sometimes congenital. The larger number of cases develop in the early life of rachitic children; according to KNIES more often from the violent rachitic convulsions which occur while the growth of the lens is still active; *i.e.*, before 6 years of age.

ARLT considers the cause to be the nutritive disturbance of the lens, due to the violent spasm of the ciliary muscle, associated with spasm of the muscular coat of the vessels.

The opacity usually develops from a few days to several weeks after the convulsion; in rare cases it spontaneously disappears. In cases of congenital cataract, or if developed at a very early period, or if it is very dense, psychic blindness may develop after extraction, due to the imperfect development of the tracts between the brain and the eye.

HORNER says that an analogous condition is observed in the enamel of the permanent teeth—a structure which is generically co-ordinate with that of the lens. The former show places where the enamel is alternately present and absent, forming horizontal grooves and ridges, seen most distinctly in the first years after the appearance of the teeth.

Several cases of cataract are reported by KNAPP, LOOMIS, and JACOBI as occurring in early infancy after pertussis.

Contribution to the Knowledge and Therapy of Myomata of the Uterus.—R. CHROBACK (*Monatsschr. f. Geb. und Gyn.*, 1896, III, No. 3, p. 177)

Since VIRCHOW in 1860 first described the degeneration of myomata into sarcomata, about forty cases have been reported, but the condition is not as rare as these statistics would indicate. The author has seen several cases of the kind. In one, which he describes in full, the sarcoma followed castration to bring on an artificial menopause.

The tumor was interligamentous, and composed partly of myomatous tissue and partly of a spindle-celled sarcoma originating from the muscular structures. The castration, which was performed some time previously, cannot be considered as a cause

of the sarcoma, as that probably existed at the time of the operation.

Drainage in Peritoneal Surgery.—BYFORD (*Amer. Gyn. and Obstetr. Jour.*, March, 1896, p. 295)

The chief hindrance to a just appreciation of drainage is the fact that either the best and most appropriate methods are not always employed or understood, or else that these are not properly carried out.

In the first place, the drainage must be adequate. It must afford a ready exit to the offending material. In the second place, it must include means for the prevention of infection by way of the drainage-tube or drainage material.

In abdominal operations it is not always sufficient to drain the cul-de-sac of Douglas or the lumbar regions. It must be determined where the effusion will accumulate, and the tube or gauze must reach these places.

In nearly all cases the author finds it advisable to administer salines, as soon after the operation as the stomach will tolerate them, for the purpose of causing peristalsis, and thus of preventing adhesions of the irritated peritoneal surfaces to each other and to the raw surfaces. In this way pocketing of effusion is prevented, and its flow toward the drainage-tube or drainage material is facilitated.

After operations upon the pelvic viscera, either abdominal or vaginal drainage may be made use of. The various means of drainage are by glass, hard or soft rubber tubing, and iodoform or sterilized gauze. When a large gauze packing or Mikulicz drain is inserted, it should be removed in a gradual manner.

The Treatment of Pneumonia in the Babies' Hospital, New York.—L. EMMETT HOLT (*Arch. of Ped.*, XIII, No. 4)

Among the children under three years of age treated at this hospital, one-fourth of the pneumonia cases are lobar, three-fourths broncho-pneumonia. The cases are kept in a ward by themselves, with plenty of air-space, temperature 70° F., and the children are removed once a day to permit a thorough airing of the ward.

To secure proper nutrition, and to avoid digestive disturbance, food is given considerably diluted, and at regular hours; also abundant water between times, with stimulants. Peptonized milk is used for the youngest infants. Care is taken to avoid distention of the colon by gas, which frequently occasions cyanosis or convulsions in infants. Daily irrigation of the colon is practiced in such cases.

Avoid drugs, and especially expectorants. Antipyretics are to be used only when there is a high temperature, with extreme nervous symptoms. Cold sponging, ice to the head, or the cold pack or bath are freely used, and occasionally phenacetin. Counter-irritation by a mustard-and-flour paste of the strength of 1 to 6, applied for a few minutes three times a day, is much more useful than poultices. Inhalations of steam from a croup-kettle are employed systematically in all cases every three or four hours under a tent. The steam is charged with vaporized creosote, turpentine, or benzoin. The inhalation is continued from ten to twenty minutes, and controls the cough. For stimulation, from $\frac{1}{2}$ to 3 oz. of whisky are administered every twenty-four hours, well diluted; strychnine in frequent small doses; sometimes nitro-glycerin, or digitalis and ammonia.

An oil-silk jacket should be worn. Prolonged cases do better when sent away to the country than when retained in the hospital wards.

SOCIETY MEETINGS

ASSOCIATION OF MILITARY SURGEONS OF THE UNITED STATES

Sixth Annual Convention, held in Philadelphia, May 12, 13, and 14, 1896

Col. LOUIS W. REED, Surgeon-General, Pa., President
(Special report to the BULLETIN)

FIRST DAY

Dr. J. M. DA COSTA, in the welcoming address for the medical profession, pointed out the need of a medical as well as a surgical training among military surgeons, showing by statistics that many more soldiers died from disease than from wounds; the ratio in former years being often as many as 10 to 1. This was not so great at the present time, as better sanitary conditions were observed with the advanced knowledge of pathology and bacteriology.

Instruction of the Hospital Corps, U. S. Army.—

Col. C. H. ALDEN, assistant surgeon-general U. S. A., read the paper. He spoke first of the training of the army corps. This should be in anatomy and physiology, when special work should follow, as transportation and care of the wounded. The schools at Fort Riley and Washington Barracks have turned out 400 men, who have been well trained, except the nurses, as there are not facilities for giving them thorough training. The instruction should be thorough and practical, but also simple and plain. He then spoke of the State service, which differed from that of the army, as the time given to teaching and training was limited. In the States with National Guards the service had been well developed. Massachusetts was the first to establish a corps, in 1885. He thought the teaching should be by lecture, demonstration on bandages, and dressing with gauzes. He then gave a brief account of the hospital corps in each State. Maine, New York, Pennsylvania, and New Jersey had the best corps.

Regimental Hospital Corps.—Major KUYK, of Virginia, read a paper with this title. He thought they were very necessary, and that State recognition was important, as otherwise it was difficult to get proper men to enlist for this service. Competitive work among hospital corps would be beneficial by bringing together the corps of different States. He thought that the service should be given more importance and then they would be able to get better men to enlist.

The Annual Encampment, and What it Teaches the Surgeon of the National Guard.—

Capt. J. J. ERWIN, assistant surgeon O. N. G., read the paper. He thought the men enlisted should undergo thorough physical examination and that they should be of good mental and moral standing. The surgeon, to be successful, should be thoroughly familiar with all the works, so that he could be ready with all equipments at a day's notice. To do this he must know that all instruments, medicine, and other appurtenances are in good condition. All vacancies should be filled once a year by competitive examinations. At the summer encampment they should carry out all details as would be done in an actual engagement. The surgeon and men, to be successful, must be endowed with natural ability and liking for the special work. In the discussion on the papers on hospital corps it was brought out that in some of the States the hospital corps were separate from the regiments and in others attached to the regiments; in both instances the work was satisfactorily done. In some of the States there

was difficulty in getting good men to enlist, and Major LINTON, of Georgia, thought that the negroes would make good men for the hospital corps in his State.

SECOND DAY

A New Bullet Forceps.—Col. N. SENN, surgeon-general Ill. N. G., showed a new bullet forceps which was especially adapted to overcome the trouble in locating and removing the jacketed bullet. The Nélaton probe and American bullet forceps had been widely employed to locate and remove the leaden bullets, but were of no use for the jacketed bullet.

Baths, Bathing, and Swimming for Soldiers.—

Lieut. H. L. CHASE, assistant surgeon Mass. V. M., read a paper on this subject. He said that one-fourth of the students on entering Annapolis and West Point were unable to swim; all of the men were first taught in pools and then taken to the river. The pools at West Point were the best. He laid stress on the importance of regular bathing with the men on entering the army and navy so that they would keep it up in the regular service. He passed around charts of the baths and pools in Boston.

The Vitality of the Cholera Spirillum in Its Relation to Certain Fruit Acids, by Passed Assistant Surgeon T. C. CRAIG, U.S.N.—

He had taken a lemon, sour orange, sweet orange, pineapple, apricot, peach, apple, strawberry, banana, watermelon, and cantaloup. The acidity of these fruits varied from the lemon, strongly acid, to the watermelon and cantaloup, which were weakly acid, and the cholera spirilla were found to grow after being in contact with the fruits from less than five minutes in the lemon to as long as the watermelon and cantaloup would keep. In the sour orange the cultures grew after 5 minutes, and in the sweet 30 minutes. The fresh fruit was sliced, inoculated, and kept in a dark place in a peptone medium, and from this a jelly medium was inoculated at different intervals from five minutes until ten or more days. From his experiments he drew the following conclusion: That the acid fruits inhibit the growth of cholera spirillum; that the fruit, unless contaminated, would not infect; that there was danger of letting the cut fruit stand in contaminated water, especially in the case of cantaloup; that the orange and lemon were the best fruits to give in cholera.

Dr. E. H. WILSON, director of United States Army Laboratory, Brooklyn, said he had seen the experiments of Assistant Surgeon CRAIG and Surgeon-general STERNBERG. He had found that the cholera spirillum, if exposed to sunlight, would only live 24 hours, and to desiccation 48 hours, so these must be eliminated in making the experiments.

Oriental Notes.—CHARLES C. FOSTER, surgeon Mass. V. M., read "Notes by a Medical Officer in the East." He visited Egypt, and when in Cairo visited the palace, which was used as a hospital. The rooms were large and well ventilated. The feces were secured in buckets of dirt, using different ones for typhoid fever, cholera, and dysentery. There was no operating-room, and asepsis was poor. The water used was from the Nile, and it was not filtered. There was a medical school, which turned out natives. They used carbolic acid for the instrument without sterilization, and on wounds used iodoform freely. He next spoke of his travels in India, where he found the water very bad, similar to that seen in standing pools during the summer; and this was not filtered. There were many types of fever. The isolation of smallpox was not compulsory, and cases could be seen in the shops. He saw many cases of beriberi and some cases of

leprosy. In China there was no medical staff attached to the army. The Chinese rarely suffered from shock, and could undergo grave surgical operations. At Hong Kong he saw and studied the plague; the period of incubation was from three to six days, and then there was a rise of temperature to 104°, great distress, vomiting, diarrhea or constipation, and sometimes involuntary discharges of feces and urine. At the end of five to six days the bubo appeared and the temperature fell. The urine was of high specific gravity with large amount of urea; later the headache, strabismus, picking at the bed-clothes, delirium, convulsions, coma, and death. The germs were found in the bubo. It was transferable by inoculation, swallowing, and by breathing infected air. There is being prepared an antitoxin which would be the ideal treatment. Among other lesions found on post-mortem were enlarged glands, intestinal hemorrhage, and congestion of the brain. The mortality was 90 per cent. in Chinese and 20 per cent. in English.

While the medical and surgical appliances of Egypt and India were found to be of considerably less value than those of Europe, he found the Japanese to be more advanced. They boil their water for drinking purposes, sterilize instruments (which are of good quality and made by native workmen), and antisepsis is uniformly practiced. Bacteriological and chemical laboratories are attached to the hospitals. In the medical wards the most prevalent disease was beriberi.

French Sanitary Service.—Major VALERY HAVARD, surgeon U.S.A., read "Notes and Comments on the French Sanitary Service, and What We May Learn from It." The French have the best hospital corps, giving 3½ men to the 100; they carried all dressing and material needed easily on pack-animals. Following the regiments were two-wheel vehicles, and in the rear the ambulances. The vehicles would not be practicable for this country, but the pack-animals would render great assistance. These could be placed 600 yards from the line of fire and the ambulances 1200 yards. The application of an occlusion dressing of gutta-percha over the aseptic wound would be an improvement as done by the French.

The Transport of the Wounded.—Major GEORGE W. ADAIR, surgeon U.S.A., read a paper on "Some Thoughts on Wheeled Vehicles for the Transport of Wounded." He spoke of the old ambulance and compared it with the new but slightly improved one. He thought that a vehicle for eight sitting and two prone wounded was not enough for two horses when in action, as the trip to the hospital was usually a long one, and that there should be some arrangement to have a double deck, the stretchers being held by straps, which would make the journey more endurable. The transportation of the ambulance by railway trains would be a question in the future.

Chinese and Japanese Field Service.—C. W. GRAVATT, surgeon U.S.N., read a paper on the "Methods of Caring for Wounded in Field and Hospital of the Chinese and Japanese Armies." The diseases most prevalent in the armies were venereal, diarrhea and other intestinal troubles; pneumonia and typhoid fever were not common. The water used was tested, and, if possible, boiled before use. Chloroform was used for the anesthetic. All the Japanese wounded were photographed to prevent others from fraudulently drawing a pension, and as soon as possible were sent to Japan for treatment. The discipline in the army was excellent. Lieut. H. A. ARNOLD showed a litter; it weighed

16 lbs., was 8 feet long, and 6 ft. 2 inches long over canvas. It was supported with ash stirrups, which were light and strong.

THIRD DAY

Anthropometric Identification.—Maj. PAUL R. BROWN, U. S. A., read a paper on "Modern Methods of Anthropometric Identification so far as the United States Soldier is Concerned." He said that in the United States the marks and scars, with the height, were depended on for identification. The Bertillon system, which is used in France, he thought to be the best. This is based on the unchangeable length in certain long bones after the age of 21, and the features of the face, with all scars and marks. With this system a soldier applying for admission into the army after deserting would be soon recognized, as, by the classification in this system, it would take a very few minutes to find his old card among a hundred thousand. The outfit required to get the measurement would cost about \$15, and it would take about 10 minutes to get the required data, with no more exposure than with the present system.

In the discussion following it was considered applicable to the United States Army, but not to the National Guards, as the system was associated with criminals and would not be favorably received. This brought up the question of medical examination for entrance into the National Guards of the different States; that of Pennsylvania and Massachusetts was the best. In some States the entrance examination amounted to very little.

The Treatment of Sick and Injured Civilians at the Summer Camps.—Lieut. H. A. ARNOLD, assistant surgeon N. G. P., read the paper. He gave an account of his last summer's camp, which was located near a picnic ground. On one day there were twenty-seven cases, mostly heat, when he had trouble in getting enough water. All cases were removed to their homes or to an adjacent town, where there was a hospital. He had one case of typhoid fever in a cook attached to the camp; he was sent to the hospital at once, to prevent the disease spreading.

First Aid.—Capt. J. E. PILCHER, assistant surgeon, U. S. A., read a paper on the "Methods of Instruction in First Aid." He said the army required all men and officers below the rank of captain to be instructed, as more deaths take place on the battle-field from failure to promptly treat the injuries that occur than from other causes. He entered with much detail into the methods of teaching, and concluded that a combination of lectures, demonstration, and recitation, with freedom from technical language, was the best; beginning with the structure and function of the body and their bandages and dressings, and finally with the treatment of actual injuries. He thought that a little book consisting of pictures of all the principal ways of applying aid should be a part of each soldier's equipment, and that a medal should be awarded for excellence in rendering first aid. This would not only be of great benefit in the army, but also in private life, as every year a great many men leave the army and National Guard.

Asbestos Surgical Field Dressing.—Capt. D. M. APPEL, assistant surgeon U. S. A., showed this. He said that Dr. W. U. KERN had demonstrated it to be a practical and serviceable dressing. It was soft, non-irritating, absorbent, and easily carried. He showed wadding, cloth, sheets, cord for drainage, pads, bandages, and towels made of asbestos which could be cleansed and sterilized after using, thus lessening the quantity to be carried. He also ex-

hibited a litter mounted on one wheel designed by FREDERIC REMINGTON. The wheel was placed to touch the ground a little before the arms were at full length. He exhibited a litter sling fitting like a shoulder-brace. It would not ride up the neck or slip off. It placed the weight in the proper place.

Commodore A. L. GIBSON, medical director U. S. N., was elected president of the association. The place selected for the meeting next year was Columbus, O.

ASSOCIATION OF AMERICAN PHYSICIANS

Washington, April 30 and May 1 and 2, 1896

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SECOND DAY—AFTERNOON SESSION

Habit Chorea.—The first paper was by Dr. WHARTON SINKLER, of Philadelphia. Ground was taken in this paper that this affection was a true chorea, and was not a form of spasm or tic, as held by GOWERS and some other writers. It was closely allied to, if not identical with, Sydenham's chorea, and was first mentioned by WEIR MITCHELL. Two varieties were mentioned, one due to a habit, or trick, while the other was operative. The symptoms were, sometimes, a hacking cough, while peculiar movements were performed. One patient, a girl, had a habit of touching the toe of one foot against the opposite calf, and would do it even when walking quickly along the street. Another girl rubbed her eyebrows until all the hair was as completely removed as if they had been shaved. Another patient, a boy, made the motions of a motorman on a trolley car. Two other patients acquired choreic movements by wearing suspenders—a habit of raising the shoulders to keep the suspenders from slipping off. The age of the patients varied from 1 year to 37, but the greater proportion occurred in the second decade, while after the fourth no cases were found. In many cases there was a heart-murmur present. The season of the year seemed to exercise no influence. Eye lesions were interesting as far as they went. The influence of school seemed to have been considerable, for a large number of cases occurred in school children. The treatment depended, in a majority of cases, upon the cause. In cases of long standing it was not sufficient to get rid of the cause, for the nervous system, having acquired certain habits, did not resume its normal condition when the cause was removed. When the eye was affected it was first necessary to relieve this condition, and then treat the patient's general health. The one drug which seemed to exercise a specific influence over the disease was arsenic in gradually increasing doses until some effect was noticed. WEIR MITCHELL recommended the arsenic hypodermatically when the expected results did not follow its administration by the mouth. Suggestion might have a beneficial effect, and promises of reward, but punishment should never be resorted to. A modified course of rest treatment produced good results.

Dr. WM. OSLER said he could not let the paper pass without raising his voice in protest against the expression of opinion contained in it. The profession had learned to separate habit spasm from true chorea, and he thought it was a step in the wrong direction to try to make them one. He thought they were entirely separate diseases, but admitted that it was sometimes extremely difficult to say whether a given case was chorea minor or habit spasms, but in the majority of cases the two affections could be separated from each other. In habit spasms the motions were very different and lasted a

longer time. Habit spasm was rarely associated with endocarditis, which he regarded as an important point. Again, who had seen in Sydenham's chorea the psychic phenomena attending habit chorea? The whole group of cases should be separated from Sydenham's chorea. The work done by the French in differentiating these two affections was first-class, and should be followed by the students of neurology in this country. The term "chorea" had always been abused, even in SYDENHAM's time, for he knew nothing of its meaning, and probably went for his information on the subject to that source of information for words and phrases which every one of that time drank from—"Burton's Anatomy of Melancholy."

Dr. WEIR MITCHELL said he was responsible for the separation of this form of disease from others, but its name did not concern him particularly, and he was indifferent as to whether it was called habit spasm or chorea. He had many times in his life seen habit spasm begin and then pass into chorea minor. A large number of Dr. SINKLER's cases had had some form of heart-trouble, and what percentage of these were due to former chorea it would be difficult to say.

Dr. H. A. HARE said he had recently seen three cases of what he was sure was habit chorea. One was a boy who had been struck with a baseball about ten years ago and had developed peculiar choreic movements and made a queer, hissing sound. The movements were exactly like those which followed ordinary electrical stimulation.

The President, Dr. ABRAHAM JACOBI, said that the chief symptoms enumerated by Dr. SINKLER belonged to the eye and forehead, and consisted of winking, blinking, twitching of the shoulder muscles, etc. He had seen a great many such cases and was the first to describe them. His first paper on the subject was in 1886, and he called it at that time partial or general chorea as a result of nasal catarrh. A large majority of cases of partial chorea or habit spasm were caused by nasal or pharyngeal catarrh, and were within the region of the facial or trigeminal nerves. Most of these cases were in children below 10 years of age, and nine out of ten would get nearly well by local treatment of the nose and nasal pharynx, while many of them would require arsenic in gradually increasing doses. Constant washing of the nose two or three times a day with salt solution, with occasional applications of nitrate of silver solution, would, as a rule, relieve the symptoms.

Dr. SINKLER said, in conclusion, that in his paper he had called attention to the fact that there were two varieties; one which was a partial Sydenham chorea and might go on to general chorea, and the other which was a habit or trick, but he did not think it took the form of a spasm.

Method of Curing Tic Douloureux.—Dr. C. L. DANA, of New York, read the paper. Dr. DANA said that the disease had incorrectly been said to be incurable, but its normal duration was from six to twelve years, unless the patient resorted to justifiable suicide. Over thirty remedies had been reported as having effected cures in single instances, but no series of cases had been treated medicinally with success. Surgeons had been very much in evidence of late years in the treatment of the affection, but it was his belief that surgical measures produced only temporary results. In one case the Gasserian ganglion was extirpated, but the disease returned and the patient became insane. The method of treatment adopted by him consisted of: (1) Hypodermatic injections of strychnia in massive doses,

(2) iodide of potassium followed by syrup of the iodide of iron; and (3) rest in bed with light diet.

(1) Single daily doses of $\frac{1}{30}$ to $\frac{1}{2}$ gr. of strychnia were given hypodermatically. Few persons could take more than this. Large doses of $\frac{1}{15}$ to $\frac{1}{2}$ gr. had a peculiar anodyne effect resembling morphia, and he had had patients come back and beg for an injection. Sometimes a patient would fall into a semi-somnolent state half an hour after an injection, as if he had taken morphia. Tic douloureux was sometimes associated with a motor tic of the seventh nerve, but this did not contra-indicate the use of strychnia. He had had one patient who could not open his jaws and had to be fed with a spoon, but this condition disappeared under the use of strychnia. Spasm of the seventh nerve was also improved. After reaching the maximum dose this should be continued five or six days.

(2) Thereupon the patient should be placed on iodide of potash, gr. v., t. i. d., and syrup of the iodide of iron. (The importance of arterio-sclerosis was dwelt on in a former paper by the same author.)

(3) Total rest in bed should then be rigidly enforced for some cases, for it enabled the patients to take more strychnia than if they were going about. Some cases could simply be allowed to stay at home, but they should be absolutely free from care. At the end of four weeks they might be allowed an outing, and after eight weeks the patient could resume his usual avocations.

Occasionally, after a first course of treatment, some patients had required a secondary or supplemental one. This method of treatment was difficult to carry out, but it was easier to get patients to consent to it than to surgical procedures. This method had been employed only two years, and there had been a few relapses, but the majority had been cured.

Dr. J. J. PUTNAM, of Boston, said that anything that offered a new prospect of relieving this disease should be warmly welcomed. At the same time it did not seem quite fair to use the term "curing" when the method had been employed only two years. Under surgical operations much longer intervals had been obtained without relapses. Nor was it quite fair to cite the case where insanity followed an operation as though it were due to that cause. In his experience with the operation he had been very successful. Cases sometimes relapsed, but only after a long time. His experience with aconitia had also been somewhat successful.

Dr. JANEWAY said that in the treatment with aconitia it was necessary to know what aconitia was being used, as some of that on the market was absolutely without effect in tic. DUQUESNEL's aconitia $\frac{1}{80}$ gr. four times a day had had a markedly good effect. Croton chloral at night 5-10 gr. should be given in case of relapse. Opium followed by tincture of aconite had done good.

Dr. WHARTON SINKLER mentioned as accessory steps in the treatment, certain important hygienic conditions, as rest in bed, even temperature, removal of excitement and worry, etc. These were often sufficient in themselves to relieve the pain, and if this part of the treatment were carried out more conscientiously we would get better results than we had been getting.

Dr. H. A. HARE asked whether the administration of massive doses of strychnia every day was kept up for several weeks. He had had two cases in which strychnine was given by the mouth in $\frac{1}{10}$ gr. doses three times a day, and one of the patients developed delusions and the other a tendency to suicide. Every time the large doses of strychnine

were stopped these symptoms disappeared, and every time the strychnia was resumed the symptoms came back.

Dr. S. J. MELTZER, of New York, said he had succeeded very well with hypodermic injections of antipyrine. The injections were very painful, but the results lasted several years. He thought that the effect of suggestion in the administration of a hypodermic might not be without its influence.

Dr. DANA, in conclusion, agreed that mental suggestion might have some effect, and he suggested that the water in which the strychnine was dissolved might also have some influence in relieving pain. He could not offer any explanation of the anodyne effect of large doses of strychnia. The injections were generally given in the neck and not at the seat of pain. He had never seen any effect on the mind from these injections. The element of rest was important, but he had had one case which got very little rest, for he came to the office every day for treatment, yet he too got well. He agreed with Dr. JANEWAY as to the unreliability of aconitia, but even when one got good aconitia, he said, it did no good. Most of his cases were those who had undergone treatment by others.

The Relation of Migraine to Neuralgias of the Fifth Nerve.—Dr. J. J. PUTNAM, of Boston, read a paper with this title. He stated that migraine was usually considered as a neurosis *sui generis*, and as quite distinct from neuralgia. He wished to show that it stood in a much closer relationship to neuralgias of the fifth nerve, especially the ophthalmic division, than to other neuroses, and that this relationship was much closer than was usually admitted. Several points of analogy between these two affections were pointed out, as regards the character of the pain, the course of the disease and the attacks, and the prodromata. It was shown that the two forms also tended to occur in the same family and in the same individual, as a matter of substitution.

The early writers considered the disease as of malarial origin, but at present malaria was very rarely considered the cause. It was true that it did occur in groups, because it had a tendency to recur at certain seasons of the year, generally the catarrhal seasons. The periosteum at the exit of the supra-orbital nerve often became thickened, thus forming a painful point. The recurrence of the attacks formed a very interesting study. The affection usually came in groups of attacks covering several weeks during which there was an attack almost every day, beginning about 8 a.m. and lasting until late in the afternoon. Some writers had described attacks occurring every third or fourth day, resembling malaria, but the writer had never seen this. Some people had attacks regularly once or twice a year at stated intervals. The relation of the disease to catarrh was interesting. Nasal catarrh was almost always present, but sometimes it might be entirely lacking. Inflammation of the frontal sinus, due to chronic neuritis, was common, but a purulent secretion might make its appearance only during the attacks of pain. Three groups of cases were recognized: (1) Those in which there was no history of heredity; (2) those in which there was a homologous heredity (some form of nervous disease in the parents or near relatives); and (3) those in which there was a marked history of migraine in the family. As regards treatment: Quinine in a watery solution four hours before the attack was extremely valuable. Arsenic was also useful.

Dr. W. H. THOMSON said that several years ago he had read a paper advocating the use of ergot in

the treatment of migraine, and since then he had seen a considerable number of cases of neuroses similar to those described by Dr. PUTNAM. For several years he had been treating such cases with fluid extract of ergot, and in some cases extremely large doses of antipyrine and chloral had been given.

Dr. M. H. FUSSELL, of Philadelphia, said he had seen several cases of neuralgia in which the plasmodium malariae was found.

Dr. PUTNAM said he remembered Dr. THOMSON's paper on the use of ergot in these cases very well. As to the plasmodium malariae, he had only been able to find it in two cases.

Virulence of the Diphtheria Bacilli.—Dr. H. M. BIGGS, of New York, read a paper upon the "Virulence of the Diphtheria Bacilli Occasionally Found in the Throat in Cases Presenting the Clinical Features of Tonsillitis." This paper gave a history of the investigations carried on by the New York Board of Health to determine the status of those cases of supposed follicular tonsillitis in which diphtheria bacilli were found. When cultures made from the throat secretions of these cases showed the morphologically typical diphtheria bacilli, tests for virulence made on guinea-pigs almost invariably showed that the bacilli were virulent. The bacteria which were used for obtaining the antitoxin of greatest virulence were, he said, from a case diagnosed as follicular tonsillitis.

Dr. W. H. WELCH said it was a very important matter to the physician to know that a number of cases that he would confidently diagnose as diphtheria were really false diphtheria. His experience in Baltimore was that pseudo-diphtheria was in nearly all instances genuine diphtheria, the Klebs-Löffler bacillus being found in 90-93 per cent. of the cases. The point he wished to emphasize was that of the cases which a physician would confidently diagnose as diphtheria the Klebs-Löffler bacillus would be present in something over 90 per cent. of the cases. These results were extremely valuable, and he agreed in the main with Dr. BIGGS in the contention that all diseases of the throat in which the Klebs-Löffler bacillus was present should be regarded as diphtheria, whether they presented all the morphological peculiarities of diphtheria or not. Dr. BIGGS had very properly pointed out the fact that the statistics of antitoxin did not show a case of this kind where the expected results had not been obtained. The report of the hospitals in Philadelphia on the use of antitoxin showed that the treatment was generally begun too late to show the effects of antitoxin, and that only the more serious cases were included, and this had had great influence on the physicians of Philadelphia.

Dr. S. J. MELTZER, of New York, said that the statement that inflammatory diseases of the throat in which Klebs-Löffler bacilli were present were really cases of diphtheria could hardly be doubted, and, on the other hand, cases in which it had not been found could not be excluded. He related a case of otitis media in which the diphtheria bacillus was found in the discharge from the ear. He had understood Dr. BIGGS to say that whenever the germ of diphtheria was found the case was one of diphtheria, but there were numerous cases in which it had been found in healthy throats. In like manner pneumococci might be found in the sputum of persons who did not have pneumonia.

The President, Dr. ABRAHAM JACOBI, took issue with Dr. BIGGS and the New York Board of Health in the dictum that every case in which a Klebs-Löffler bacillus was found in the mouth of an otherwise healthy person should be isolated and prevented

from going about. He believed that this was unnecessary and uncalled for, and that there were men then present who had diphtheria bacilli in their mouths and who had never had diphtheria. He looked upon the action of the Health Office of New York in this matter as unnecessary and cruel.

Dr. BIGGS said, in closing the debate on his paper, that he had not claimed that the presence of diphtheria bacilli was an indication of diphtheria unless there were an inflammatory process present. It did not make any difference whether there was a pseudo-membrane present or not if the diphtheria was an inflammatory condition caused by the Klebs-Löffler bacillus. As to the absence of bacilli in some cases, or a failure to find them, it had been occasionally noticed that cultures made from undoubted diphtheritic cases did not show the bacillus. Still, in the vast majority of cases cultures properly made in all these cases would show the bacilli, but perhaps not until after many attempts. The experience of Dr. WELCH in Baltimore and Philadelphia, that in a majority of cases where there was a pseudo-membrane the diphtheria bacillus would be found, was certainly true. He thought that Dr. JACOBI was wrong, and that the belief of most physicians was wrong in regard to the frequency with which diphtheria bacilli were found in healthy throats. He had made a great many examinations in this line, and in almost every instance where bacilli were present subsequent examinations had proved that these persons had been in close contact with diphtheria patients. It was a rare experience to find that those who were in ordinary attendance on diphtheria patients had bacilli in their throats. Where they were found it was reasonably certain that those persons had been in close contact with a case. This was an important thing, as there was a general misconception on the subject, for the discovery of diphtheria bacilli in a healthy throat was a rare instance, occurring in only about 1 per cent. of cases.

Prognosis in Pneumonia.—Dr. A. H. SMITH, of New York, read a paper with this title. Lobar pneumonia was rare before two years of age, Dr. SMITH said. The prognosis was bad when the disease was complicated with diabetes, and the pre-existence of chronic pneumonia made the prognosis grave. In the Presbyterian Hospital the right lung was more often affected than the left in fatal cases. Frequent respiration with high fever was a bad omen, but high temperature alone was not an unfavorable symptom, and the administration of coal-tar preparations to reduce the temperature subjected the patient to a real danger in order to relieve him from an imaginary one. The heart sounds were also of prognostic importance, and a weakened pulmonary second sound indicated that the right heart was failing and that there was a tendency to a fatal termination. He had never seen a case in which the heart sounds were sharp that a favorable prognosis was not justified. The association of leucocytosis with many conditions, and especially with pneumonia, was important. The exact relationship between temperature and leucocytosis was not stated. Whether or not we assigned to the white blood-corpuscles the formation of antitoxin and the rôle of scavengers, it was certain that cases in which leucocytosis existed did better than those in which it did not exist. The presence of leucocytosis was not, in itself, a favorable sign, but its absence rendered the prognosis grave. An extreme degree of leucocytosis with a low temperature suggested suppuration or emphysema. In the Presbyterian Hospital, when it was desired to keep a record of the leucocytosis, it was charted in curves on the temperature chart.

A member asked Dr. SMITH whether he had made any observations on the influence of pregnancy in the prognosis of pneumonia. He had had three cases and all died.

Dr. S. J. MELTZER, of New York, asked whether any bacteriological experiments had been made. He stated that the micrococcus lanceolatus was destroyed by a temperature of 41° C.

Dr. W. H. THOMSON, of New York, inquired whether herpes had ever been observed in these cases.

Dr. H. A. HARE, of Philadelphia, said he had made some studies on the relation of fever to the prognosis of disease. He hoped that Dr. WELCH would carry out his suggestions and determine the temperature which would destroy this organism. In pneumonia the fever was a protective process. Up to 104° or 105°F. it might be protective, but it might also become dangerous. If it be true that leucocytosis gives a favorable prognosis, so it was also true that high temperature was a good prognostic symptom, for heat destroyed the toxin manufactured by the germ. Fever, in certain cases, also aided in the development of leucocytosis. As to the coal-tar preparations, there was sufficient evidence to show that they did harm and, to a certain extent, prohibited the development of leucocytosis, and diminished the production of heat. On the other hand, cold bathing did not prevent the production of heat, but rather seemed to increase it. Under antipyretic treatment the oxidation products were held in check, and heat, which was deleterious to germ life, was not formed, while cold bathing aided these functions.

Dr. W. H. WELCH said it was his opinion that lobar pneumonia was always due to the micrococcus lanceolatus. Bacteriology at present gave very little information as to the prognosis in pneumonia, and there was not yet sufficient bacteriological basis in regard to the protective effect of heat on the micro-organism. At 41° C. the organism ceased to grow, it was true, but that temperature was never reached in pneumonia.

In closing the discussion of his paper Dr. SMITH said that as regards the influence of pregnancy on the prognosis he had not had enough cases to study that question. He had only seen herpes a few times. The attempt to lower the temperature frequently blinded us, but if it was necessary cold bathing furnished the best means. We should be better off not to attend to temperature alone.

NEW YORK ACADEMY OF MEDICINE

SECTION ON PUBLIC HEALTH

May 6, 1896

HENRY DWIGHT CHAPIN, M.D., Chairman

The Disposal of the Waste of Great Cities.—

Dr. CHAPIN read the paper of CHAS. H. SNOW, M.S.C.E., professor of civil engineering at the University of the City of New York, "The Collection and Disposal of Liquid Waste (Sewage)."

Prof. SNOW divided this subject into two groups; first miasmatic, and second germ diseases. In the latter zymotic diseases were mainly present, air, water, and refuse acting as vehicles. He spoke of the influence of drainage, and said that improper drainage would contaminate the air, and in this way germs would be disseminated. As to water, it contained both organic and inorganic matter, the natural inorganic matter containing algæ, insects, etc. In referring to stagnant water it was not to be under-

stood to mean "quiet" water, but water that was impure. Water may become impure from a deficiency in oxygen, the deficiency being occasioned by artificial means. Water may also be spoiled by sewage, this being in a great measure due to man's presence, the excreta from that source contaminating the water supply.

One plan of getting rid of sewage is by filtration, as carried out in London and some American cities; and in this connection mention was made of cities owning their own plant for the purpose.

In the collection and disposal of sewage it becomes necessary to keep it fresh until it reaches the point of delivery; although gases formed by the decomposition are not harmful of themselves, the sewage is detrimental in acting as a vehicle for conveying disease germs.

It is not necessary to collect sewage by means of pipes; it may be gathered as in Paris, where tanks and tubs are in use, and the matter is then conveyed to different stations for final disposal before decomposition has taken place.

Automatic disposal is, however, the best method; that is, by means of pipes of sufficient size to allow a steady flow under natural pressure. The pipes should not be too large, as this would invite stagnation; and if this occurs deposits form on the sides of the pipes. A good plan is to have manholes at intervals placed at right angles to the main pipe; in this way a current is produced and a continuous flow takes place. There should be no uneven joints where accumulations might form. Care should be taken to have the pipes properly aligned for the same reason. Moreover, they should not be porous. The best form of pipe is an egg-shaped one.

The plan of separate disposal of liquid matters is the best; that is, to have different pipes for sewage and subsoil water. Memphis was the first American city to adopt this system, which was done under the direction of Col. WARING, of this city.

In the separate system the subsoil water passes through porous pipes, and on this account it is desirable to adopt this system in large cities, because of the great quantity of water used.

After the collection the question of disposal of sewage either into cesspools or large bodies of water presents itself. In some towns and villages cesspools are made use of, but this method is to be condemned unless the receptacles are lined with watertight materials. When sewage is emptied into large bodies of salt water it is innocuous, and especially when emptied at tide-water; the danger to health arises when sewage is allowed to flow into rivers on the banks of which there are several towns below, the water becoming contaminated and giving rise to various diseases. It was formerly supposed that, because the water did not respond to chemical tests there were no bacteria present. This is, however, a mistaken idea.

In order to render sewage as harmless as possible the solids may be removed by sedimentation (allowing the solids to settle down by checking the flow of water through it); or these may be separated by precipitation, which is produced by chemical action forming what is known as "sludge," and which may be sold and used for the purposes of fertilization.

In concluding Professor SNOW said that the public good often had to give way to party policy. He also said that good work cost no more than poor work, as the latter had generally to be replaced. Work should not be given to those who need it, but to those whom the work needs.

The Collection of Solid Waste (Garbage).—Col. GEORGE E. WARING, Jr., Commissioner of Street

Cleaning, made some remarks on this subject. He said that ever since he entered on the duties of his office his time had been occupied by the physical aspect of the question, rather than the sanitary side of it. He spoke of the narrow and crowded streets on the East Side, where the population was the densest of any place in the world, and inhabited by people from all parts of the globe, who had no idea of sanitation. Until recently the streets in this section were never cleaned except when there was a downfall of rain. In winter there was always an accumulation of greasy mud, often several inches thick, the accumulation of months. When it became dry it acted as a vehicle to convey all kinds of disease germs.

Of the 417 miles of streets, all were cleaned once a day, 260 miles were swept twice a day, and about 20 miles three or more times daily, while in Hester street and adjacent streets men were constantly sweeping them.

The disposal of street-sweepings was next referred to. He said that after the collection of the refuse it was taken to the dump and loaded on scows, which were towed to Gravesend Bay, and kept there until high tide, when they were taken out ten miles beyond the lightship, and unloaded while the tide was flowing out. Even then, substances, such as paper, bottles, etc., were to be found floating along the adjacent beaches. This was, to say the least, a barbarous practice. Besides, the material so disposed of had a market value. Some years ago the city paid for trimming the scows at the dumps; after a time the contractors paid for the privilege, until one year as much as \$90,000 was paid for the privilege of trimming the scows. As to the disposal of garbage, that would cost \$90,000 for that alone, and about \$227,000 for ashes and garbage together. A contractor had offered to take the salable matter, and pay the city \$245,000 yearly for it, leaving \$18,000 to the credit of the city. The ashes and street-sweepings could also be used for filling-in purposes, and it was claimed that land so filled in would be worth \$3000 per acre. He also spoke of the disposal of ashes and garbage under water, but this, he said, was impracticable because of its offensiveness.

Modern Methods of Sewage Filtration.—ALLEN HAZEN, chemist of the Massachusetts Board of Health, in speaking of this subject, said that the best results from filtration were obtained when the sewage was allowed to percolate through a sandy soil, there being about 35 per cent. of open space occupied by air. The sewage should be spread over the land to a vertical thickness of about three inches. The sewage forces its way through the soil downward, displacing the air. The organisms remain in the particles of sand, and are there harmless. The products of decomposition pass off as carbonic-acid gas. Other materials remain on the surface as a scum, which becomes dried by the sun, and in time disappears altogether. This process of distribution of sewage was continued at stated intervals, but could not be continued indefinitely because the land became so saturated with it that it was necessary to plow and harrow the soil. By this method the most gratifying results had been obtained in this State and in Massachusetts, where the soil was particularly adapted to this method.

Dr. JOHN H. GIRDNER continued the consideration of this subject. He said that the water supply and that of food and air were matters that vitally concerned the public health. Our water supply was as good as that of any large city in the world. As

an illustration of this he cited the statistics of the Board of Health regarding typhoid fever, to the effect that, out of 127 cases reported, 117 had been in the country within a few weeks of the outbreak of the typhoid fever. Garbage and dirty streets were sources of infection with diphtheria and tuberculosis, which were caused by specific germs. Mention was also made of cobble-stone pavements, which allowed offal, filth, and dirty water to accumulate in the crevices of the stones, so that in warm weather these dried up, forming dust, which was a ready means for the dissemination of disease germs. The back yards of many houses were also responsible for much disease and suffering. Thus, in Dr. GIRDNER's practice, three cases of malaria occurred in a family, all of which were directly traceable to the recent digging up of the soil in the back yard. The speaker strongly advocated asphaltting the back yards and the streets, and said that every inch of ground in the city should be hermetically sealed in this way. He then cited statistics at random from the records of our Board of Health prior to Col. WARING's term of office, showing a marked reduction in the number of cases of diphtheria. In concluding his remarks, the speaker expressed his great satisfaction with the improved sanitary condition of the city since the present Commissioner of Street Cleaning had been in office.

Dr. F. FERGUSON agreed heartily with what the previous speaker had said about the advisability of paving the yards and streets with asphalt, and also regarding the better sanitation in the city.

GENERAL MEETING

May 7, 1896

ROBERT H. GRANDIN, M.D., Vice-President, in the Chair

Polyarthritis of Scarlet Fever.—Dr. HENRY W. BERG, in a paper with this title, cited the detailed clinical histories of six cases of polyarthritis occurring in the course of scarlet fever and observed in hospital. He said that he had seen but very few cases of this kind in connection with scarlet fever in private practice. In most of the cases coming under his observation a number of joints had been affected, and the affection had been by no means unilateral, as some observers had claimed. The smaller joints were more apt to be affected. He had not found that the joint lesion was ushered in by any marked rise of temperature. The most frequent complication in addition to the arthritis was nephritis. None of the cases had any cardiac lesion, and only one of the six cases gave evidence of purulent inflammation of the joint. This was the only case in which there was necrosis of bone. His experience had led him to believe that polyarthritis occurring in the course of scarlet fever did not in itself render the prognosis more grave. In all but one of the cases reported the arthritis complicated the desquamative stage. The author divided the cases of polyarthritis of scarlet fever into four varieties, viz.: (1) cases in which there was a simple inflammation of the joint-structures without effusion of serum; (2) cases in which the clinical symptoms were chiefly those of synovitis; (3) cases in which the arthritis was at first simple, and later on purulent synovitis terminating in a purulent inflammation of the joint; and (4) cases of suppurative arthritis with rapid destruction of the joint-structures. He said that it was probable that this polyarthritis of scarlet fever was the result of a mixed infection, developing chiefly in the nose and throat. The late development of the joint-complication

would seem to point to the occurrence of a secondary mixed infection. The author expressed his belief in the existence of a contagious element in these cases because of the much greater frequency of this complication in the hospitals, and its occasional occurrence in more than one member of the same family. Clinically, there were many points of resemblance to rheumatism, but there were also a number of points of difference. In acute articular rheumatism there is seldom more than a simple synovitis, whereas in polyarthritis of scarlet fever, as had been stated, the joints might become seriously diseased. Again, acute articular rheumatism was very commonly associated with endocarditis, yet in the cases of polyarthritis reported in the paper there was not a single instance of endocarditis. He had not found that the polyarthritis of scarlet fever was in any way modified by the salicylates. In many of these cases there was clinically nothing but pain and tenderness about the affected joints, but in others there were swelling and much pain. It was not uncommon for the inflammation to subside and leave behind a pseudo-ankylosis, which could be ultimately completely removed in most instances by the proper use of massage. The second and third varieties were of especial interest to orthopedists. The acute infectious diseases, as was well known, were particularly common in childhood, and to their influence had been ascribed the development of many cases of chronic joint-disease. To ascribe a tubercular osteitis to the occurrence of an acute infectious disease long before the development of the osteitis, seemed unwarrantable. He could not, therefore, accept the statement made by a prominent orthopedic writer that 16 per cent. of the cases of chronic joint-disease result from some acute infectious disease.

As these joint-inflammations were in all probability due to mixed infection, it was our duty to institute prophylactic treatment by preventing the entrance of streptococci and other germs into the circulation. The throats of patients with scarlet fever should therefore be irrigated with a weak solution of corrosive sublimate, 1:4000, or with a solution of boric acid. It was also desirable that where several cases of scarlet fever occur in private practice the physician should endeavor to isolate the simple cases from the complicated ones. Phenacetin seemed to relieve the pains in the joints without depressing the heart. The local application of ice was also useful. His experience had taught him that we must look for no specific action from our drugs in the polyarthritis of scarlet fever. It was possible that in time the antistreptococcus serum would prove useful for the control of this complication. In the more severe cases it was often necessary to apply some simple splint in order to immobilize the limb and give rest and relief. In the more severe cases, passive motion had proved sufficient; he did not, therefore, favor the breaking up of adhesions under anesthetic. It was the rule that the joint-effusion would undergo spontaneous absorption, although at times this might be tardy. In the suppurative cases it was necessary to incise and drain the joints.

Dr. NEWTON M. SHAFFER said that he had given much attention to the question of the relation of the acute infectious diseases of childhood to the development of tubercular joint-lesions. A careful analysis of over 100 cases in private practice, in which this matter had received especial attention, showed that in no case could the tubercular disease be traced to the acute exanthematous lesion. In one case of scarlet fever an acute pyemic joint resulted; and he

believed that the polyarthritis of scarlet fever was a mild form of septic infection, and that the relation of scarlet fever, measles, and diphtheria was no different from that of typhoid fever, pneumonia, or acute rheumatism to the development of a tubercular joint or spine. In his experience, an *acute* joint lesion ran an *acute* course, and when it became *chronic* it was rarely that it became tubercular, while a chronic tubercular disease of the joints or spine commenced with an illy deformed prodromal state, without any preceding acute manifestations. A dislocated joint, for example, rarely developed tubercular sequelæ. A traumatism producing a hydrarthrosis at the knee rarely or never became tubercular. Certain conditions are necessary to the development of a tubercular joint-disease, and these conditions must be present when the exciting cause brings the mere latent condition within the range of clinical observation. Scarlet fever and measles do not seem to be among these exciting causes.

Dr. SHAFFER further stated that the behavior of an advanced tubercular joint-disease under the influence of an attack of scarlet fever was very interesting. In many instances he had seen rapid improvement—closing of old sinuses, etc.—under these circumstances. It would seem as if the entire aspect of the chronic disease was changed by the scarlet-fever germ—the high temperature, etc.; and while this was not always the case, it would seem that scarlet fever ran a benign course in patients with tubercular joint-disease. A recent outbreak of scarlet fever at the Orthopedic Hospital would seem to indicate that this was true. Of 10 children affected, only one died, and this one was a most delicate child with advanced mid-dorsal Pott's disease with necessarily impaired respiration, complicated with paraplegia due to compression of the cord.

Dr. J. W. BRANNAN limited himself more particularly to a consideration of the character of the arthritis, as shown by the presence or absence of endocarditis, and by the effect of the administration of antirheumatic remedies. His attention had been called to the association of scarlet fever and endocarditis about eight years ago in connection with an examination of a young man who had a mitral regurgitant lesion. This patient had never had rheumatism, but the cardiac symptoms dated back to an attack of scarlet fever in childhood. At about the same time he had been called upon to treat three cases of scarlet fever in one family. All apparently made a good recovery, but one of them, a girl, not long afterward developed chorea, and there was evidence of mitral insufficiency and enlargement of the heart. The father of the child is a physician, and attributed her present condition entirely to the scarlet fever. The child still has, from time to time, attacks of mild arthritis, accompanied with fever, and at such times the heart's action becomes more violent. The salicylates relieve all these symptoms very promptly, and arsenic and iron control the choreic movements. Since then this association of scarlet fever with endocarditis had been seen repeatedly in dispensary and hospital practice. Out of the 17 cases of scarlet fever now in the Willard Parker Hospital, there were three mild cases of polyarthritis, and in two of these there was a distinct cardiac murmur, in one case at the base, in the other case at the apex, of the heart. In neither case was there any cardiac murmur at the time of admission. In a case of arthritis and scarlet fever seen in the hospital last winter, the hands and feet were markedly twisted over to the right. The child was given 5 grn. of salicylate of sodium six times a day, and the joints gradually became normal in a few days. He could not be positive that in

this particular case the salicylate had anything to do with the relief of the symptoms, but in the two cases at present in the hospital he had no doubt about the beneficial effect of the salicylates, for their administration had been very promptly followed by relief and improvement. For this reason he was inclined to look upon these cases of arthritis occurring in connection with scarlet fever as being essentially rheumatic in their nature.

Dr. ALEXANDER LAMBERT said that two germs had been claimed to be characteristic of scarlet fever—(1) a protozoon, and (2) a form of streptococcus. It was particularly difficult to prove the causal relationship of streptococci, for in cases of scarlet fever they are almost always present in abundance, and are liable to be absorbed into the system. Some years ago it had been claimed that a special streptococcus—the streptococcus conglomeratus—was always present in the severe cases. Quite recently a Russian observer had found a diplococcus present in the blood of every one of 13 cases of scarlet fever examined by him, yet he did not claim that this was the specific cause of scarlet fever. It should be noted, however, that in extensive studies of the blood he had never observed this diplococcus in the blood in other diseases.

Dr. SAMUEL KETCH said that the class of cases described by Dr. BERG rarely came to the notice of the orthopedic surgeon. They illustrated the difference between acute, self-limited articular disease and the chronic form very forcibly. In the light of his own clinical experience he was not prepared to admit that there was no connection between acute infectious diseases and the development of chronic joint-disease, especially in tubercular subjects. Dr. BERG's paper would have been more valuable had he had the opportunity of studying these cases in tubercular patients. The speaker has recently seen a case of this kind, occurring in a little girl belonging to a tubercular family, the father having phthisis. The attack of scarlet fever occurred just prior to the development of the tubercular joint-lesions, which were situated in the left hip- and right knee-joints. The patient died of tubercular meningitis. He had seen several cases in which chronic joint disease had developed shortly after an attack of measles. He regarded the infectious disease in the light of a traumatism.

Dr. W. R. TOWNSEND said that some years ago he had seen a case in which both knee-joints were affected. The joint-affection had developed on the first day. He had seen the case on the third day of the disease, and both joints were so swollen that he had suspected fluid, and had introduced a needle, but with a negative result. He had seen the case one week later, after the use of a splint and the administration of the salicylates, and the improvement in that time had been quite marked.

Dr. W. F. CHAPPELL said that at one time he had had a large experience with scarlet fever, and out of about one thousand cases he only recalled having seen two cases of arthritis.

Dr. S. H. DESSAU said that the tendency at the present time was to consider acute articular rheumatism as an infectious disease, and from what he had heard in the discussion this evening it might be said that this theory had been advanced a decided point. Certainly the remarks of Dr. BRANNAN on the analogy of his cases of cardiac complications in scarlatina to those occurring in acute articular rheumatism were strong corroborative testimony to this end. Personally he had seen very few cases of polyarthritis complicating scarlatina. These occurred some years ago and were promptly relieved

by ordinary rheumatic treatment; so, reasoning from effect to cause, he had looked upon them as being rheumatic in nature.

Dr. BERG, in closing the discussion, said that he was well aware that endocarditis and pericarditis were commonly associated with scarlet fever, but he did not think the rheumatic poison caused the endocarditis and pericarditis which complicated the scarlet fever. He believed that these complications were the result of the streptococcus mixed infection, just as he believed that the polyarthritis was due to a mixed infection. His experience in 1894 and 1895 had been that the mild cases of arthritis in scarlet fever had done well under the administration of anti-rheumatic remedies, but the result would probably have been the same if the salicylates had not been given at all. He believed this because the severe cases resisted a very energetic use of antirheumatic remedies. One should not affirm that there was no etiological connection between chronic tubercular joint-disease and the acute infectious diseases, except where the one had followed very promptly and directly upon the other.

AMERICAN LARYNGOLOGICAL ASSOCIATION

EIGHTEENTH ANNUAL CONGRESS

Held at Pittsburg, Pa., May 14 to May 16, 1896

President, Dr. WM. H. DALY, of Pittsburg

FIRST DAY—MORNING SESSION

President's Address.—The president welcomed the association and traced some of the great advances the science of laryngology had made during the past few years. He dwelt upon the enviable standing attained by the specialty, but advised the members of the association to keep up their interest in general medicine. He said that while we had learned the importance of clearing out every obstacle to free and unimpeded nasal respiration, much yet remained to be learned in many departments, especially in regard to sinus disease. He paid a high tribute to the genius of MANUEL GARCIA and deplored the recent death of Dr. WILHELM MEYER, whom all the world mourns.

Etiology of Deviations of the Nasal Septum, by Dr. JOHN O. ROE, of Rochester.—Causes of deviation are predisposing and exciting. Under the former are diathesis (struma, tuberculosis, syphilis, rachitis, cretinism) and racial characteristics. Civilized people suffer more from deviations than do the primitive races. The aquiline type of nose is frequently thus affected. Exciting causes include disease of the septum or other parts of the nose, and defective development. The vomer is formed from two laminae with intervening cartilage, in which ossification begins as early as the sixth week of fetal life, and proceeds from behind forward, and the coalescence of the laminae is completed by the third year. Sometimes it does not happen at all. The slightest irregularity of development leading to the hypertrophy at any point tends to push the plate over to the other side. A similar effect is produced by hypertrophy of the cavernous tissue of the septum as well as of the inferior turbinated. Malformation of the superior maxillae, highly arched palate, and heredity must also be looked upon as causes. Occasionally displacement occurs from uneven development of the whole face.

Where deviation occurs the turbinated bodies on the larger side are generally hypertrophied. This is the effect, and not the cause, of the septal condition, and the hypertrophy is caused by the excessive amount of air passing through the over-patent nostril.

Anterior deviations are caused by chronic turgescence of the mucosa, growths, results of operations, dislocation of the triangular cartilage, and flattened alæ. Trauma, also, is a powerful factor in deviations. It is more frequent in males of all ages, and callus generally forms on the convex side. Intranasal disease, leading to crusts, etc., and causing the patient to always blow the nose with the same hand or to pick one side of the nose, acts in the same way.

The Operation for Deviation of the Nasal Septum.—Dr. A. W. WATSON, of Philadelphia, read the paper. Any operation, to be successful, requires breaking up the resiliency of the cartilage. Many procedures fail because they do not provide for the reduction of the amount of tissue necessary to convert a bent septum into a straight one. This should be done by removing a portion of the tissue in the general line of deviation. If the latter is horizontal, we must take out an elliptical piece gradually convergent at either end; if vertical, a wedge-shaped piece, with apex above, extending as high as possible, with its base near that of the septum, where it may be joined by a horizontal incision. The excised portion should always include the protruding angle. The mucous membrane must not be cut on the round side, as it helps to hold the edges. Incision must therefore be made on the convex side, followed, if necessary, by the use of crushing forceps.

A second necessary feature is the proper retention of the parts. The writer prefers a flat pin with a ring head covered with rubber tubing, inserted from the concave side, passing diagonally through to the other side, across the vertical incision if existing, and then back again into the septum until the head lies on the latter, care being taken to avoid deflection in the opposite direction. In this way both sides are left free for cleansing and respiration. Padding of the pinhead prevents ulceration, and it may be worn for three weeks or more without discomfort. If bony deviation exists, a gauze pad may be used between the septum and the outer wall.

Discussion was opened by Dr. E. FLETCHER INGALLS, of Chicago, who thought the effect of trauma was overestimated, and that nutritive changes were the most frequent cause of deviation.

Dr. M. J. ASCH, New York, referred to his well-known operation. It might leave some intranasal roughness, but the patency of the occluded nostril was restored.

Dr. S. O. VAN DER POEL said that in his hands, the pressure of the pin had caused pain and even ulceration. Perforation had sometimes resulted at the junction of the two incisions.

Dr. CARL SEILER, Philadelphia, believed that if the pin was inserted from the outside of the nose at the notch of the nasal bones, and passed down to the cleft between the palatal processes of the superior maxillæ, the upper end should be left projecting above the skin so as not to be covered over by the swelling of the soft parts.

Dr. D. BRYSON DELAVAN, of New York, had discarded the use of pins. He believed that mouth-breathing would produce septal deviations.

Dr. W. E. CASSELBERRY, Chicago, believed in the influence of heredity. No one operation will answer for every case. We must take account of the age of the patient and of the anesthetic employed.

Dr. W. K. SIMPSON, New York, would extol the value of the Asch operation. It was bad surgery to plug the nose with gauze to act as a retaining apparatus. He used splints in both nostrils at first,

and they served admirably to check hemorrhage.

Dr. C. M. SHIELDS RICHMOND sawed off the convexity before attempting to straighten the septum.

Some Reflections upon Atrophic Rhinitis, by Dr. W. PEYER PORCHER, Charleston, S. C.—The writer regards this affection as not a disease *per se*, but as a result of preceding inflammation ending in a purulent discharge which washes away the epithelium and destroys the mucosa. In one case he has had good results from the use of an iodine-iodide solution which caused hypersecretion and greatly lessened scab-formation. It was applied to the nostrils on cotton tampons.

Dr. SEILER regarded the Gollstein cotton tampon as our most efficient resource. It needed no medication, and the secretion it excited would moisten the inspired air, which would also be strained by the cotton.

Dr. THOMAS HUBBARD, of Toledo, was accustomed to wrap around the shrunken turbinates cotton moistened in an alcoholic solution of acetanilid.

Dr. C. C. RICE, of New York, relied on washing and oiling the nose.

Dr. G. A. LELAND, Boston, used antiseptics and cocaine in the nose for its secondary effect of relaxing the vessels. The addition of resorcin to the cocaine solution lessened the danger of systemic effect of the latter.

Dr. ROE employed weak silver-nitrate solutions and a galvanic current. We should look to the accessory sinuses, for scabs do not come from mucous membrane alone.

Dr. J. E. NICHOLS, of New York, advocated the use of a 10-per-cent. solution of ortho-chlorophenol.

Recent Progress in the Treatment of Malignant Disease of the Larynx, by Dr. D. BRYSON DELAVAN, New York.—Three operations are now well established: (1) Thyrotomy, with or without partial laryngectomy; (2) the Solis-Cohen method of complete laryngectomy (removal of entire larynx, and insertion of the severed end of the trachea to the external edges of the cervical incision); (3) complete laryngectomy in cases of extensive disease with glandular involvement. He alluded to Buttin's rules regarding the indication for operation, and discussed the rules of procedure and after-treatment applicable to each of the three procedures. He highly extolled the advantages of the Solis-Cohen method as promising: (1) Because it lessened the danger to life from inhalation pneumonia; (2) it allowed of easy deglutition; (3) there was a fair possibility as to recovery of voice without the use of any artificial apparatus; and (4) an increase in the patients with an avoidance of disfigurement, and the avoidance of an artificial apparatus.

As to the third operation, there is some analogy to the operation for mammary cancers. We have a more restricted field in which to work, but freer access to the glandular enlargements. Preliminary tracheotomy should be done several days before the laryngectomy, and the patient must be of good vitality, free from any physical defect likely to complicate recovery, of suitable age, and in circumstances assuring proper after-care.

The recent advances made have come from the combined labors of the laryngologist and of the general surgeon, who have together given long and close study to the problem. Operation should not be lightly undertaken by those unfitted for the work, as they bring reproach upon themselves and discredit upon the operation.

Laryngeal Photography with the Aid of the Arc Light, by Dr. T. R. FRENCH, Brooklyn.—In the

writer's earlier experiments he made use of sunlight as the illuminating agent, and the results were unsatisfactory, owing to insufficiency of illuminating power. He has recently called to his aid the arc light, and with the most gratifying results, not only with the larynx, but also with the naso-pharynx and posterior nares.

As the distance between the camera and object was very short, it was difficult to adjust the light to the sensitive plate so that a proper focus would be obtained. Requisites therefor are a small diaphragm, a rapid shuttle, a very sensitive plate, and a powerful light.

The necessary outfit for the latter consists of a 2000-candle-power arc light partly inclosed in a metal box, the anterior face of which bears a condensing lens. At a distance of 9 in. from the box the lens gives a focal distance of 20 in. The lamp and accessories are fitted to a narrow board attached to a table with a device for raising and lowering the light. A shelf beneath the table carries the rheostat. The matter of technique is the same as with the sunlight condenser.

The pencil of light must be caught upon the head mirror some few inches inside the focal point. The focus is then found, and with it, perhaps, a good picture. If the first effort does not succeed, the focus and necessary amount of light being known, there is no trouble in securing at the second sitting as many photographs as desired. No longer time is required with apparatus in good order than in making the usual careful laryngoscopic examination.

AFTERNOON SESSION

Intubation in the Adult, with Special Reference to Acute Stenosis of the Larynx, by Dr. W. E. CASSELBERRY, of Chicago.—In these conditions the adult cannot be dealt with exactly as is the child. Important distinctions obtain, both with regard to the technique of the intubation and the possible scope of the operation. Four cases of diphtheria were reported, all recovering. One case of acute edema of the larynx was complicated by spasm of the masseter muscle, so that the mouth-opening was narrow. Intubation failed, and tracheotomy was done, the patient dying just as the operation was completed. The last case, presumably one of laryngeal and subglottic edema, recovered. He would lay down the following conclusions:

1. For one accustomed to use the mirror, intubation in the adult is easier and more certain than in children, and a sitting posture for the patient should be employed.

2. A patient lacking composure may be wrapped in a blanket, seated in a straight backed chair, the head inclined backward, and the finger used as a guide.

3. A patient lacking strength to move from the bed, should be placed at the right edge of the bed, so that the operator can stand close to his right. Head and shoulders should be well raised, neck moderately extended, and the method by the sense of touch otherwise fulfilled.

4. In nearly moribund cases, the tube may be inserted while in the recumbent position, the patient being at the right edge of the bed and the operator on his right.

Cocaine to the fauces is always advisable. Extraction of the tube is easy under the use of the mirror. The author's well-known method of feeding can be used with adults, but naturally less easily than with children.

As to the limitations of intubation in the adult, it

can in diphtheria be advantageously substituted for tracheotomy. In acute edema it is technically feasible in uncomplicated cases, and even when exhaustion is extreme one attempt is justifiable, the smallest sized adult tube being used. When the jaws are set or pharyngeal swelling exists, it is absolutely contra-indicated, as tending to exhaust the patient. It has been done in one case of arthritis deformans of the larynx. It is permissible in traumatic edema, laryngismus stridulus, and in edema secondary to chronic tuberculosis or syphilis.

Dr. SIMPSON said in discussion that the word "acute" as applied to diphtheritic stenosis had quite a different significance from its use as applied to the edema ensuing upon a chronic stenosis or occurring in Bright's disease. As to technique the tongue must be well drawn forward, otherwise intubation would be impossible.

Dr. THOMAS HUBBARD, of Toledo, recalled two cases of tracheal edema in which the larynx was normal. Of course, in such cases intubation would be useless. In one fatal case erosions after syphilitic ulceration were found; in the other there was edema from iodism of trachea, face, and pharynx, but none of larynx. Pilocarpine relieved the difficulty.

Spindle-celled Sarcoma of the Nasal Passages, with Specimen and Slides.—Report by Dr. J. E. BOYLAN, of Cincinnati (read by title). The symptoms of the case were obstinate epistaxis, stoppage of the nose, and occasional acute pain, all extending over a period of several months. There was noticeable bulging under left nasal bone. On tilting up the end of the nose a brown-red mass was seen filling the cavity and limited behind by the posterior nares. Removal of mass by wire *écraseur* in two sections and curetting of the base.

Mass appeared as a soft, liver-colored growth the size of a hen's egg, and had probably been confined to the inferior turbinate. Examination revealed spindle-celled sarcoma. No recurrence after 22 months. The paper closed with an enumeration of cases reported since BOSWORTH's tabulation of 1889.

Naso-Pharyngeal Fibrous Tumors, by Dr. E. FLETCHER INGALS, Chicago.—The paper consisted of the history of a boy, aged 11 years, in whose right cheek there had been a fullness for some four or five years, and whose nostril on the same side was occluded by a mass, causing the usual obstructive symptoms. The latter was removed with a galvano-cautery *écraseur* with considerable hemorrhage, checked by plugging with lint. The swelling in right cheek under the zygomatic arch, measuring 2 x 3 ctm., was treated by submucous injections of lactic acid (15 min. of a 25-per-cent. solution containing 3 per cent. of carbolic acid in 12-per-cent. glycerin). These injections were repeated at varying intervals, and finally about two-thirds of the mass of the growth was removed, leaving an indurated nodule in the upper and back part of the cheek. By the wire *écraseur* about 90 per cent. of the original growth was removed. Dr. INGALS is encouraged to believe that lactic acid will prove of service in many cases where the knife and galvano-cautery are inapplicable.

Naso-Pharyngeal Fibromata, by Dr. CHARLES M. SHIELDS, of Richmond, Va.; with slides and photographs of two cases:

CASE I.—White male of 23 years. Firm tumor filling naso-pharynx, attached to vault and posterior and left lateral wall; also filling left nostril, attached to external wall of latter for half its length. The septum was crowded over, occluding right nostril, producing "frog-face" and "dead" voice.

Cocaine 10 per cent. was used hypodermatically in left nostril, and a cold-wire loop introduced through the latter down through the naso-pharynx, where it was then molded into a large loop. The two ends of the wire in the nostril were then passed through the cannula of a nasal snare and tightened up. After a slowly increasing traction of five hours the wire broke. The next day the same procedure was repeated with the wire of a galvano-cautery snare, and the growth removed in a few minutes. It was $1\frac{1}{4}$ by $1\frac{3}{8}$ in. Fourteen months later a piece the size of a grain of corn was removed from the nostril, and cautery applied to a thickened area at the site of the original implantation in the pharynx.

CASE II.—Negress aged 48. Fibromata in this situation are rare in women, and the writer has not found any previous record before in the negro race. The growth filled the entire naso-pharynx, but there was no nasal attachment. Microscopical diagnosis, pure fibroma. The soft palate was pushed well forward. Electrolysis for five weeks without result. Case still under treatment.

Dr. SHIELDS believes that nearly, if not quite, all such growths can be removed through the natural passages. Resection of the superior maxilla is not often necessary. Ligatures, thermo-cautery-caustics, evulsion, etc., are not to be at all considered. Reliance must be placed upon either the hot or cold snare. The use of irido-platinum wire, on account of its stiffness, offers a great advantage. The current should be used with frequent interruptions so that the patient is not exhausted, and so that pain may be minimized and hemorrhage avoided. The cold wire often breaks if the growth is very hard. Moreover, the initial current in the hot wire makes a groove in broad-based masses, so that the danger of the wire slipping is very much lessened.

Tubercular Infection of the Lymphoid Tissue of the Pharynx, with Some Remarks on Laryngeal Infection, by Dr. JONATHAN WRIGHT, of Brooklyn.—The writer has repeated the noteworthy experiments of DIEULAFOY regarding the possible infectiousness with reference to tuberculosis of tonsils and adenoids removed from children, presenting no clinical evidences of that malady. In 12 unselected cases, WRIGHT inoculated guinea-pigs with tonsils and adenoids which, in each case, were examined histologically and bacteriologically, but inoculation was with negative results. The animal experiments made by Dr. W. H. PARK also resulted negatively. STRAUSS and others having found tubercle bacilli in healthy throats and noses. Dr. WRIGHT is inclined to coincide with CORNIL in thinking that DIEULAFOY's results were due to surface contamination. BOTEY, a Spanish observer, has had results similar to those of Dr. WRIGHT.

The paper made reference also to a patient of Dr. W. F. CHAPPELL's who, following an operation for adenoids, developed a naso-pharyngeal tuberculosis. Tissue taken from the case and subjected to the same methods of examination as before, was found to contain both tubercle and bacilli, while positive infection followed animal inoculation. This result was regarded as proving that the methods employed in the former cases were correct.

The writer of the paper has recently found, in sections of tissue from a tubercular larynx, unmistakable proof that the bacilli penetrate intact epithelium, but he is not prepared to say that this may happen in healthy throats.

Discussion on the Relation of Diseases of the Nose and Throat to Disorders of the Digestion. ACUTE DISEASES OF THE NOSE AND THROAT.—Dr. M. R. BROWN, Chicago. The writer enumerated

the various pathological conditions of the throat which come on acutely in disordered states of the gastro-enteric tract. These include edema (sometimes angio-neurotic), laryngeal hemorrhage, various acute catarrhs associated with liver conditions, etc. On the other hand, the stomach is often upset by swallowing the secretions from sores in the throat. Spasm of the glottis may be caused by upward pressure of the diaphragm from gastro-enteric distention. The throat lesions of typhoid fever are well defined, including lesions varying in severity from hyperemia to loss of tissue, edema infiltration, ulcerations, and perichondritis. There is no proof of the direct inflammation of the throat by throat disorders, but clinical facts strongly suggest this.

CHRONIC DISEASES OF THE NOSE AND THROAT.—Dr. T. R. FRENCH.—It is well known that chronic throat, nose, and ear cases are generally accompanied by digestive disturbances, though we cannot always demonstrate the relation between cause and effect.

Rapid eating is an American habit, and certain naso-pharyngeal disorders, common in this country, may result directly therefrom. Many acute catarrhs result from causes which first act upon the digestive organs. Observation on 50 medical students showed all with catarrhal faucitis and pharyngitis; 47 had digestive disturbances, 14 were constipated, only 1 had a clean tongue, 45 were rapid eaters, 33 were smokers, 16 had nasal obstruction, 2 were mouth-breathers. There was no difference between the throats of the moderate smokers and of the non-smokers. The part of the throat affected seemed to bear no relation to results of chemical analysis of stomach-contents. Disordered stomachs and bowels often caused reflex vasomotor disturbances in the throat.

Case of Gunshot Wound of Pharynx reported by Dr. D. N. RANKIN, of Allegheny.—The patient had lived nearly 50 years after a shot wound of the pharynx, in which the ball penetrated about two inches below the lobe of the right ear and, passing across the pharynx, escaped at the corresponding point on the left side.

SECOND DAY—MORNING SESSION

Contribution to the Pathological Anatomy of Ethmoid Disease, by JOHN H. MACKENZIE, M.D., of Baltimore.—The writer gave the histories of several typical cases and reports of tissue removed from the middle-turbinate region in the course of operation. This was generally called myxomatous tissue, but he would take strong exception to such a use of the term. He advanced the following propositions:

1. The degeneration known as myxomatous is not a mucoid change, but a result of simple inflammation. Myxomatous polyps are nothing but edematous fibromata, and represent a degenerative change characterized by infiltration of round cells and the formation of a low grade of connective tissue.

2. This wrong use of the term has come from the fact that we have considered the question clinically, and have neglected to subject the tissue removed to microscopical examination.

3. The long continuance of an ethmoiditis, even though purulent, may not cause any bone lesion. Pent-up secretion may cause osteitis, but not necrosis, as is stated by many writers.

4. The various changes found in this condition of ethmoiditis are only different stages of the same process, and hence do not need different names.

5. It is difficult to distinguish between the rounded-celled tissue found in these cases and true sarcoma. Hence, before making our diagnosis, we must examine different portions and depths of the tissue removed.

Study of Irruptions of the Teeth into the Nasal Chambers. RÉSUMÉ OF REPORTED CASES, AND REPORT OF ADDITIONAL CASES.—Paper by A. W. MAC-COY, M.D., of Philadelphia.—The writer gave a bibliography of cases reported to date and narrated some additional cases of his own. Frequently these cases are discovered accidentally in a search to account for some purulent nasal discharge. Teeth in the nose may cause, by reflex influence, cough, and even laryngeal spasm. In one of the writer's cases a tooth was discovered in a nostril which was the seat of a sarcoma, and the question was suggested as to whether or not the irritation of the tooth had been the exciting cause of the malignant formation.

Control of Hemorrhage in Operations on the Throat and Nose.—Paper by A. COOLIDGE, M.D., of Boston, Mass. (read by title).—In operating under an anesthetic the primary consideration is the position of the patient. In the horizontal position there is danger that blood may enter the pharynx or larynx. Where the field of operation is confined to the nose, such an accident may be averted by first plugging the posterior nares. Most surgeons find it awkward to operate with the patient's head hung perpendicularly over the end of the table (Rose position), though such a position prevents a flow of blood into the lower pharynx. The Trendelenburg posture is available for thyrotomy and operations on the lower pharynx, as it protects the trachea from the entrance of blood. In operating on the upper respiratory tract the patient should sit upright in a chair with the body inclined well forward and under perfect control of the surgeon. This is more easily accomplished with children than with adults.

As to hemostatic measures, first employ compression if possible; styptics irritate, are unreliable, and cause delay.

Bleeding in the nose can generally be checked by plugging the anterior nares; in the naso-pharynx, by crowding gauze up from below as in plugging the posterior nares. The amount of bleeding varies according to size and number of vessels and the contractibility of the entire vascular tissue.

Myxoma, adenoids, and tonsils seldom cause alarming hemorrhage. Sarcoma and fibroma of the basilar process are apt to bleed profusely. Here we may plug the nose anteriorly and posteriorly. Curretting adenoids generally leads to a less loss of blood than the use of the forceps. In tonsillotomy we may employ the cold snare under general anesthesia or the hot snare under cocaine.

AFTERNOON SESSION

A Case of Unusual Laryngeal Growth.—Paper by J. W. GLEITSMANN, M.D., of New York.—The writer's patient was a Russian Jew, aged 38, who had complained for a year of hoarseness. He had no cough, dyspnea, emaciation, pain, or glandular enlargement. The right half of the larynx, from the anterior commissure to the arytenoid cartilage, was occupied by a mass slightly corrugated and with irregular edges apparently between the true and false cord and looking like a bunch of white cotton tucked into the ventricle. Laryngeal movements, including abduction, were apparently normal. The rest of the larynx presented nothing worthy of note.

A bit of the tumor was excised with a Landgraf double curette, but proved to be too superficial a cut

for satisfactory examination. No bleeding or noteworthy reaction followed the operation. The latter was repeated in two weeks, and about one-quarter of the mass excised. An examination of the fragment was made, and it was regarded as a hard papilloma, probably malignant and possibly carcinomatous. There was a papillary proliferation of the mucosa, with a thickened epithelial covering, the outer portion of the latter being apparently horny. The underlying epithelia were proliferated and the nuclei split up. A small-celled infiltration of the submucosa was noticed, and the epithelial layer showed a tendency to invade the subepithelial tissue as in carcinoma.

The individual tubules or ducts, also, of the marginal glands, instead of appearing separate and distinct, were so affected that the cylindrical epithelium appeared to merge from one duct into another.

Dr. GLEITSMANN had found no reference in literature to laryngeal growths of such a distinctly white color. FRÄNKEL had insisted that cancer of the cords in its incipency frequently presented a condition of whiteness instead of one of hyperemia or inflammation. An unusually snow-white color or grass-like appearance strongly pointed in the direction of malignancy.

Tuberculosis of the Larynx, with Results of Treatment as Far as Ascertained. THE TOPICAL USE OF BROMOFORM, FORMALDEHYD, GUAIACOL, AND PROTONUCLEIN, by S. SOLIS-COHEN, M.D., of Philadelphia.—In treating tubercular laryngitis, the writer first uses a spray of H_2O_2 and then an alkaline detergent. The formaldehyd occurs in commerce as a 40-per-cent. solution called formalin. By use of water as a diluent, solutions of formalin are made of various strengths up to 10 per cent., which is the strongest one used. The solutions are kept made up, as they cannot be well prepared extemporaneously. A 4-per-cent. cocaine solution is first applied, and then the subsequent burning pain is very slight. The remedy has seemed to reduce cough, and lessens pain. Topical applications of bromoform produce a certain amount of local anesthesia. Cases were related in which the use of the various remedies enumerated in the title of the paper had seemed to produce beneficial results. Ulcerations were healed and infiltrations removed.

Dr. GLEITSMANN said that he had used parachlorphenol in 2-per-cent. solution with much satisfaction. A shriveling and removal of infiltration took place. In this respect it was superior to lactic acid, which was especially applicable to ulcerated areas. The best way to prepare the solution was to use equal parts of glycerin and water as a vehicle.

Some of the Unusual Manifestations of So-called Catarrhal Laryngitis.—Paper by Dr. C. C. RICE, of New York.—The author's conclusions were as follows:

1. There are two ordinary types of catarrhal laryngitis, the one following and dependent upon nasal obstruction, and the other upon a laryngitis sicca—an extension downward of atrophic rhinitis and dry pharyngitis. In these two processes the same pathological condition exists from the commencement of the nose to the bronchial tubes.

2. Occasionally we see laryngeal disturbances which from their appearance might belong to one of these two ordinary types, but the significant point is that they are present when the nose and pharynx are in excellent condition, or, still again, that the laryngeal disorder, although in kind like that of the nose, is much greater in degree, which is the reverse of the usual condition.

3. There are several disturbances usually classi-

fied under "catarrhal laryngitis" which seem to bear little or no relation to a previously existing nasal or pharyngeal disease. They are commonly observed in singers and public speakers, and are undoubtedly caused by over-use of the voice and improper methods of breathing and of tone-production.

4. We may also find:

(a) General tissue-atrophy of the pharyngeal and laryngeal soft parts, which produces a disordered relation and a muscular weakness of the larynx;

(b) A permanently enlarged and usually congested epiglottis, the larynx as a whole being normal;

(c) "Choked voice" caused by actual enlargement of the ventricular bands;

(a) Permanent, and perhaps congenital, vascularity of the vocal bands;

(c) Localized congestion of some portion of the larynx, indicating probable over-use of the transverse arytenoideus;

(f) "Singer's nodes" from incorrect vocal methods, cured by proper breathing and singing;

(g) Muscular fatigue, evidenced by hoarseness and loss of voice.

5. These various disorders should be recognized by proper names, their etiology appreciated, and they should not be confused with the phenomena of a simple catarrhal laryngitis.

6. Little dependence can be placed upon topical treatment unless special care be given to proper methods of breathing and voice-production.

Dr. DE ROALDES had noticed redness of the cords in persons able to sing perfectly well. Such a condition was more common in persons of the rheumatic or gouty tendency and in basses and baritones.

Incomplete Fracture of the Left Cornu of the Thyroid Cartilage, resulting from Self-inflicted Violence, by A. W. DE ROALDES, M.D., of New Orleans.—The fracture was produced by the patient's violent manipulation of the external tissues of the neck, in the effort to dislodge an olive-seed accidentally swallowed. The sensation of a foreign body disappeared, but the patient felt at the same time a creaking sensation in the throat. Nothing could be seen the next day, when the throat was examined, but a protrusion of the mucous membrane over the site of the left cornu of the thyroid cartilage, which was supposed to result from the inward thrust of the cornu, due to its incomplete fracture.

Perichondritis of the Crico-arytenoid Joint, due to an Unusual Cause.—Case reported by Dr. H. S. BIRKETT, of Montreal.—The patient, a young man, had, in the course of a gonorrhea, acute inflammation of the left ankle, knee, and shoulder-joints. At the same time he experienced pain and dysphagia on the left side of the throat. The mucous membrane over the left crico-arytenoid joint was swollen and edematous, while the ary-epiglottidean fold was unaffected. The true cords were normal in appearance. Pressure over the joint from the outside was very painful. Abduction and adduction of the left cord were much slower than the same movements on the opposite side. Hoarseness was also present. An ice-coil gave speedy relief. The case was regarded as one of acute rheumatic affection, occurring in the course of an ordinary urethritis.

St. Luke's Hospital.—The following appointments to the attending staff of St. Luke's Hospital have recently been made by the Board of Managers: Attending *ad-interim* surgeon, J. A. BLAKE, M.D.; attending *ad-interim* physician, G. A. SPAULDING, M.D.; assistant attending physician to the consumptive wards, I. H. HANCE, M.D.

CORRESPONDENCE

(From the BULLETIN'S Special Correspondents)

PHILADELPHIA LETTER

A stated meeting of the County Medical Society was held May 13, with Dr. J. C. WILSON in the chair.

Dr. SILAS UPDEGROVE read a paper on the "Necessity for the State to Demand the Adoption by the Colleges of a More Uniform Standard of Educational Requirements for the Degree of Doctor of Medicine." He said the present laws governing the practice of medicine were inadequate, the quack could go unmolested, each day appearing with his advertisement in the best daily papers. In cases of malpractice the treatment employed was governed and measured by the school from which the medical man was graduated. The State boards often let the fee, and not the qualifications of the man, decide whether he should practice medicine.

Dr. J. SOLIS-COHEN exhibited a tongue depressor, by means of which the interior of the larynx and trachea can be inspected directly, without the aid of a laryngoscopic mirror. It was of German make, having a long blade curved at the end so as to catch the epiglottis and pull it forward, and with the aid of an electric light the posterior walls of the larynx and trachea could be plainly seen, thus bringing into view the parts most difficult to see with the laryngoscope. There was a shield fitting over the anterior part to support the teeth and keep the mustache out of the way. Dr. COHEN demonstrated its usefulness on one of the doctors.

Dr. B. ALEXANDER RANDALL, by invitation, demonstrated with lantern views "The Surgical Anatomy and Pathology of the Mastoid." He showed clearly the relations and connections of the mastoid cell with the internal ear. In several slides he demonstrated the varying relation of the lateral sinus which may be just under to the point of selection in trephining, and that often the bone was very much thinned from pressure. The relation of the floor of middle fossæ to the internal ear was shown, and in one case the bone was very thin. In trephining the mastoid cell he never used a trephine or chisel and hammer, but found the hand-gouge the most satisfactory, as there was less danger of doing harm. He had always succeeded with the gouge, as he had very strong hands and could eat his way through gradually.

* * *

Drs. SENN, of Chicago, KEEN, and HEARN held a clinic for the military surgeons at the Jefferson Medical College on May 14. Dr. W. J. HEARN showed a case of resection of the shoulder-joint with good motion. This case was one of old dislocation, with the arm practically useless; he could now use the arm freely.

Dr. NICHOLAS SENN selected for operation a case of old ununited fracture of the patella. He believed in the conservative treatment of immobilization by splint when the fracture was seen early, but in cases like this one, where there is $1\frac{1}{2}$ and 2 inches separation and the fracture an old one, the only thing to be done was to cut down, remove the interposing soft parts, refresh the edges of bone and bring them together. The asepsis should be carefully looked after as it had been in this case; the field should be bloodless. To get this he preferred elevation of the limb and not the application of Esmarch's band, as had been employed here. The

incision should be circular, beginning just above the lower edge of upper fragment, and carried downward and upward to a point on opposite side. Then you saw the soft parts that kept the end apart. Remove as little as possible of the bone in refreshing the edges, and after drilling the holes with a hand-drill, he usually brought the edges together with strong chromicised catgut if the tension was not too great. If it was, he used silver wire, which he inserted, and with forced extension brought the edges together and twisted the wire. Now if the asepsis had been perfect the union should be by first intention. He preferred horse-hair sutures to close the skin, which he thought was an ideal suturing material. He did not drain, but dressed and put on a splint. If he had been unable to get the edges of bone together he would have done a plastic operation.

Dr. W. W. KEEN showed two brain tumors about the size of turkey eggs which he had removed, with recovery in both cases. The last one was only removed 4 days previously, but the temperature was normal and the patient had enjoyed a breakfast of soft boiled eggs. He next showed a patient with stitches just taken out where he had removed vegetation from the knee-joint. He next amputated at the shoulder-joint for osteo-sarcoma of humerus. He used Wyeth's pins, passing them far enough back to prevent the rubber band slipping over the wound. They should come out an inch behind the point of acromium process.

* * *

Dr. J. W. WHITE held a clinic before the Military Surgeons at the University Hospital on May 13. He showed a case operated on after the diagnosis had been made by Röntgen's X-rays. He next showed a case of appendicitis operated on some weeks before, when there had been an abscess. He opened and drained it, and did not remove the appendix, which he thought was the best treatment in these cases. He then anchored a floating kidney. The next case was abscess of mastoid cells, which he opened with a chisel and let out the pus.

The annual commencement of the Medico-Chirurgical College was held May 13. There were 54 graduates of regular class and 7 of the special. The address was delivered by Dr. L. WEBSTER FOX, in which he emphasized the importance of continuing their studies, especially in the line of preventive medicine.

The seventy-first annual commencement of the Jefferson Medical College was held on May 15. There were 227 graduates from a class of 243. This was the largest class ever graduated. The degree of LL.D. was conferred upon Judge MAYER SULZBERGER of the Common Pleas Courts. Dr. THEOPHILUS PARVIN delivered the address, impressing upon the class the importance of being men and sustaining the reputation of the college, as had been done by former graduates.

A New Test for Sugar.—A new test for sugar in the urine is made by dissolving 2 gme. of salicylate of sodium, 2 gme. of salicylate of copper, and 8 grm. of sodium-carbonate crystals in 100 c.c. of distilled water. Add an equal volume of the reagent to the urine to be tested, and apply heat until a precipitate is thrown down. The presence of glucose will be indicated by a yellow deposit, the suboxide; and the contrary will be shown if the precipitate is of a grayish or black color, representing the binocide.

BOOK REVIEWS

Higher Medical Education the True Interest of the Public and of the Profession.—By WILLIAM PEPPER, M.D., LL.D. Pp. 100. Phila.: J. B. Lippincott Co.; 1894.

This book consists of two addresses delivered before the Medical Department of the University of Pennsylvania on October 1, 1877, and October 2, 1893. In the first address reasons were given for certain reforms just inaugurated in the medical teaching of that school; the latter address was delivered at the time when the four-year course was initiated, and was devoted largely to an examination of the gratifying progress made in medical study under improved methods. In one of the appendices very valuable information is given of the extent and nature of medical study in 21 foreign countries. The facts and figures given regarding the work in the University bear abundant witness to the debt it owes to the wise guidance of ex-Provost PEPPER.

Electricity in Electro-therapeutics. Electro-technical Series.—By EDWIN J. HOUSTON, Ph.D., and A. E. KENNELLY, Sc.D.; 128 illustrations. Pp. vii-402. New York: The W. J. Johnston Co.; 1896. Price, \$1.

The well-known authors of this book have succeeded in giving a clear description of those principles of electricity with which the physician should be familiar. The aim of the book is to explain electro-physical laws, and not to discuss the therapeutic value or indications of medical electricity. However, such forms of electro-therapeutics as have been proved to be worthless are condemned. As an example of this may be cited the inertness of magnetic currents in respect to the animal body, a fact which was demonstrated several years ago by PETERSON and one of the authors. The whole subject is treated in a lucid way, and the book may be recommended. It is well printed and well bound and the illustrations are appropriate and neatly executed.

The Pathology and Treatment of Venereal Diseases.—By ROBERT W. TAYLOR, M.D., Clinical Professor of Venereal Diseases at the College of Physicians and Surgeons (Columbia), New York, etc. Philadelphia: Lea Bros. & Co.; 1895.

If we turn to the edition of 1883, by BUMSTEAD and TAYLOR, and compare it with this present edition, we cannot but agree with Dr. TAYLOR when he says in his preface that "the advancement made in the nature and treatment of gonorrhea up to the present time is so great that its portrayal really amounts to a revelation."

In the former edition, although the gonococcus had been discovered and described by NEISSER four years previously, and his work had already been supplemented by others, the author was not then ready to accept NEISSER's views, and the mention of the gonococcus as an etiological factor in the production of gonorrhea occupies only four lines, while in the present edition he does full justice to NEISSER and his followers; though in the chapter on the etiology of gonorrhea, while the author admits the causative relation of the gonococcus in the great majority of cases, he still arrays himself on the side of conservatism, and is very persuasive in the arguments which he brings against the absolutism which, pushed to extremes, may in some few cases bring

reproach to innocent persons. If he errs from a scientific point of view, he at least errs on the side of humanity. He seems to be far readier, however, to believe in the theory that the gonococcus may possibly reside normally as a harmless denizen in the male urethra, ready on some change in the normal relations of the mucous membrane to spring into virulency, than he is to believe in the latency of the gonococcus after it has become an inhabitant from an external source, though the preponderancy of testimony seems to lie with those who believe in the latter. Both sides of the question are fully presented, and the references to the great wealth of the literature of the past ten years on this subject make the work a valuable one.

In the treatment of gonorrhea, the author gives most of the methods that have been advocated from time to time. His own treatment is conservative in the extreme. The abortive method advocated by JANET of hot irrigations of permanganate of potash he characterizes as a fad of the hour, which will soon pass. So it may be, and, if so, let us hope that it will be because something better has come to take its place; certainly one who uses the Janet method or a modification of it will seldom see the picture presented on page 117, where he describes the disease at its acme as "a continual profuse flow of pus from the meatus, and we hear patients express wonder as to where so much discharge comes from."

The author has a great horror of much active treatment during the acute stage; we find, however, that he advocates—and rightly, too—irrigations of both the anterior and posterior urethra with hot solutions of permanganate of potash, and says: "Solutions 1:1000 or 1:2000 (always hot) may bring about a cure." If this is so, then the method of irrigation advocated by JANET is not a fad, but will grow in favor, for one has only to try the method of irrigating the entire urethra and bladder without a catheter to see its superiority over the catheter and large hand-syringe as advocated by the author, except in a small number of cases.

The points which the author makes (page 174) in favor of a small soft rubber catheter cut short for making instillations into the deep urethra, in place of the stiff instrument invented by ULMANN and modified by KEYES, are well taken; but he makes no mention of a really valuable instrument invented by BANGS and but little known—a sound-shaped instrument of large caliber.

The chapter on prostatitis, p. 214, is a disappointment, and at least five years behind the times. The same perfunctory statement is made that is generally found in previous textbooks, that the chief symptom of prostatitis is prostaticorrhea, ignoring much that has been written recently on this subject, where it has been shown that this symptom, occurs in a comparatively small percentage of the cases, while it has been frequently observed that prostatitis is present in a large percentage of chronic gonorrheas.

In his chapters on stricture, the author arbitrarily names 30 F. as the largest sound that should be passed into a urethra, and his views are those of extreme conservatism.

Practically, the first half of the book of 1000 pages is occupied by gonorrhea and its complications, and the last half treats of syphilis, preceded by a short chapter on chancroid.

The chapters on syphilis show much erudition and are well written. The author considers that no time is gained by instituting treatment before the appearance of the secondary symptoms. He be-

lieves in a short, vigorous treatment by mercury, rather than the long-continued, so-called "tonic treatment." The proto-iodide of mercury is held to be of value only in the early secondary stages.

Dr. TAYLOR is certainly to be congratulated on his book.

Contribution à l'Etude de l'Atrophie musculaire Progressive; Type Duchenne-Aran.—By Dr. J. B. CHARCOT. Pp. 159, 4 plates. Paris: Félix Alcan.

The establishment of the autonomy of progressive muscular atrophy, type Duchenne-Aran, is the object of the present study. It will be remembered that the tendency has been, in recent years, to doubt the existence of a chronic anterior poliomyelitis, which is entirely unassociated with degenerative changes in the crossed pyramidal tracts; and amyotrophic lateral sclerosis, which was first described by the elder CHARCOT, instead of remaining a sub-class of the primary spinal muscular atrophies, is now regarded by many, among whom may be mentioned LEYDEN, GOWERS, and DEJERINE, as the constant pathological condition in the Duchenne-Aran type. Professor CHARCOT never admitted an identical pathological character for these two diseases, and now his son endeavors to show that they are essentially different.

In this effort he is not altogether successful. Of the five cases which he records from personal observation only two came to autopsy, and so these only are to be regarded as serviceable for the determination of so delicate a pathological problem. Of these cases, in one, which was typical of the Duchenne-Aran type, the atrophy began in the hands and then involved the shoulder muscles. The reflexes were "brusque." Microscopic examination of the spinal cord showed, in addition to the changes in the anterior horns, a degeneration of the anterior ground fibers and a slight degeneration of the columns of Goll.

The second case was subacute, lasting but a little over two years, and its pathological anatomy was similar to the preceding.

In spite of the author's statement that the pyramidal tracts were intact, the sections from both cases, as they appear in the plates, show a distinct sclerosis of these tracts; and one would suppose from the plates that the specimens were examples of chronic anterior poliomyelitis with atrophy of ganglion cells and hyperplasia of the structural elements of the anterior horns, associated with adjacent myelitis and degeneration of the cerebral motor paths.

Cases from literature are cited in support of the theory of the autonomy of muscular atrophy, and the opinions of the opponents of this theory are criticised. It may be mentioned that the criticism of GOWERS is based upon the views expressed by him in 1886, and not upon those of the 1892 edition of his text-book.

The conclusions from this essay, that progressive muscular atrophy, type Duchenne-Aran, exists as a morbid entity, are unjustifiable from the proofs furnished by the writer's investigations. The study, however, is a valuable contribution to the subject if it be regarded as a contribution and not as a categorical monograph. The reviewer may, without danger of incurring the reproach of precisianism, take exception to the redundancy of the text and the indirectness of the style. The book abounds in long textual quotations, which might have been condensed; and the first three pages are devoted to expressions of gratitude and goodwill to no less than 19 different individuals. It is such faults as these which prevent French medical literature from being more generally read.

EDITORS' NOTES

The Saint-Paul Prize of 25,000 francs, destined to reward the discoverer of an efficacious and specific remedy for diphtheria, has been divided between Professor BEHRING, of Marburg, and Dr. ROUX, of Paris.

The American Microscopical Society will hold its annual meeting at Pittsburg, Pa., August 18, 19, 20, and 21, 1896. WILLIAM C. KRAUSS, M.D., 382 Virginia street, Buffalo, N. Y., is secretary of the society.

The Iowa State Medical Association has elected the following officers for the ensuing year: President, JOHN C. SCHRADER, of Iowa City; first vice-president, E. L. BAKER, of Indianola; secretary, J. W. COKENOWER, of Des Moines; assistant secretary, C. C. TUTTLE; treasurer, GEORGE B. SKINNER, of Cedar Rapids.

After the Charter.—In Madison, Wis., action has been taken to annul the charter of the Wisconsin Eclectic Medical College. It is stated that the so-called college is irregular, and that it has no appliances, libraries, or teachers, and that it issues diplomas to those who can pass examination on about forty questions.

The Southeast Missouri Medical Association held its twentieth annual meeting in Kennett, Mo., on May 5. The following officers were elected for the ensuing year: Dr. F. KINSOLVING, of Hornersville, president; Dr. W. N. HOWARD, of Cape Girardeau, vice-president; Dr. A. D. BLOMEYER, of Cape Girardeau, corresponding secretary; Dr. H. S. McELMURRY, of Charleston, recording secretary; Dr. R. T. HENDERSON, of Jackson, treasurer.

Montana State Board of Medical Examiners.—At the last meeting of the State Board of Medical Examiners, at Helena, Mont., officers for the ensuing year were elected, as follows: Dr. W. C. RIDDELL, Helena, president; Dr. W. M. BULLARD, Wickes, secretary; Dr. C. K. COLE, Helena, treasurer; Dr. T. J. MURRAY, Butte, chairman of the Executive Committee. Other members of the Executive Committee are Dr. SLIGH, of Granite, and HENRY CHAPPELLE, of Billings.

Southwestern Kentucky Medical Association.—At the twenty-fifth annual convention of this association, in Paduca, May 12 and 13, papers were read as follows: "The Needs and Rights of Old Age," by Dr. I. N. LOVE, of St. Louis; "The Treatment of Abscess in Tubercular, Joint, and Spinal Diseases," by Dr. R. A. HIBBS, of New York city; and a demonstration of the use of the Murphy button in intestinal surgery, by Dr. J. B. MURPHY, of Chicago. The usefulness of the Röntgen rays as applied to surgery was also discussed.

The Oswego County Medical Society.—At the seventh annual meeting of this society, in Pulaski, N. Y., the following officers were elected for the ensuing year: President, J. L. MORE, M.D., Pulaski; vice-president, F. L. COOLEY, M.D., Oswego; secretary, E. P. MARSH, M.D., Fulton; treasurer, CHAS. BACON, M.D., Fulton. The regular order of business at the forenoon session was as follows: Address, "Looking Backward," by the president, T. J. GREENE, M.D., Mexico, N. Y.; "Placenta Prævia," W. H. COUNTERMAN, M.D., Turin, N. Y.; "La Grippe," CHAS. J. BACON, M.D., Camden,

N. Y.; "Report of an Interesting Case," R. J. DIMON, M.D., Hastings, N. Y. At the afternoon session the following papers were discussed: "Report of an Interesting Case," F. S. LOW, M.D., Pulaski, N. Y.; "Conservative Surgery," H. W. CALDWELL, M.D., Pulaski, N. Y.; "Operations in Some Cases of Strangulated Hernia," J. K. STOCKWELL, M.D., Oswego, N. Y.

The New Hospital on Carew street, Springfield, Mass., recently purchased of Dr. HURLBUT by Bishop BEAVEN, will be opened about July 1. The following physicians will serve on the various staffs: Surgical Staff—Dr. W. A. SMITH, Dr. D. E. KEEFE, Dr. A. R. RICE, and Dr. E. B. ADAMS; Medical Staff—Dr. W. A. ANDREWS, Dr. T. H. TRACY, Dr. C. F. J. KENNEDY, and Dr. R. J. MANSFIELD; Consulting Staff—Dr. MARSHALL CALKINS, Dr. ALEXANDER S. MCCLEAN, Dr. E. H. GUILD, and Dr. W. P. BLAKE; Dental Surgeons—Dr. J. F. O'NEILL and Dr. A. J. FLANAGAN; Oculist—Dr. C. H. CALKINS; Pathologist—Dr. H. F. Shores.

The New York Celtic Medical Society.—The regular monthly meeting of this society will be held at the residence of Dr. JOHN ASPELL, 357 West 56th street, on Thursday, May 28, 1896, at 8.30 P. M. sharp. Order: 1. Scientific communications; 2. Presentation of instruments and specimens; 3. Exhibition of patients; 4. Paper of the evening, "Cystic Degeneration of the Chorion," by Dr. GEO. MCGAURAN; 5. Executive session; 6. Social reunion. Members are requested to contribute to the clinical features of the evening and to be present at the opening hour. FRANCIS J. QUINLAN, M.D., President, 54 West 17th street. PETER MURRAY, M.D., Secretary, 208 Amsterdam avenue.

New York State Medical Society, Fourth District Branch, held its twelfth annual meeting in Buffalo on May 11. The following members were named as an Executive Committee for the ensuing year: Allegheny, B. C. WAKELY; Cattaraugus, C. J. MUDGE; Chautauqua, F. D. STRONG; Erie, C. C. WYCKUFF; Genesee, M. W. TOWNSEND; Livingstone, B. F. KNEELAND; Monroe, E. M. MOORE, Jr.; Niagara, G. P. EDDY; Ontario, F. R. BENTLEY; Orleans, D. C. TOMPKINS; Steuben, C. F. PARKILL; Wayne, G. INGRAHAM; Wyoming, Z. G. LUSK; Yates, WILLIAM OLLIVER. Papers were read on the following subjects: "A Recent Experience with Erythema Nodosum Trachealis," GEORGE F. COTE, M.D.; "Acute Catarrhal Gastritis," GEORGE G. STOCKTON, M.D.; "Two Cases of Intra-thoracic Growths," DELANCEY ROCHESTER, M.D.; "Reports of Especially Interesting Cases in Abdominal Surgery," C. C. FREDERICKS, M.D.

Niagara University.—The graduating exercises of the medical department of the Niagara (N. Y.) University took place at the Star Theater, Buffalo, on May 12. The following are the officers of the class: President, WILLIAM E. GOODSSELL; vice-president, FRANK A. CROSBY; secretary, CHARLES J. MENGIS; treasurer, GEORGE E. NOUR; orator, JOHN J. MAHONEY; Executive Committee, JAMES A. WALTON and M. D. HUGHES.

On the evening of May 12 the annual meeting of the Alumni Association was held at the University. Dr. CARLTON C. FREDERICKS delivered the address of welcome. Dr. JOSEPH J. KANE, the president, delivered the annual address, after which followed the election of officers and a general business session. Papers were read as follows:

"Involuntary Intoxication, from a Medico-Legal Standpoint."—SIDNEY A. DUNHAM, M.D., Buffalo.

"Treatment of Retrodeviation of the Uterus."—C. E. CONGDON, M.D., Buffalo.
 "Some Heart Lesions and their Treatment."—D. L. REDMOND, M.D., Buffalo.
 "Treatment of Puerperal Convulsions, with report of cases."—L. G. HANLEY, M.D., Buffalo.
 "Puerperal Eclampsia, with report of cases."—J. S. PETERSON, M.D., New York.
 Bishop MALLALIEU and Dr. HERMAN MYNTER awarded the diplomas to the graduates at the commencement. The alumni banquet followed the commencement exercises.

American Neurological Association.—The following preliminary program of the twenty-second annual meeting of the American Neurological Association, to be held in Philadelphia, June 3, 4, and 5, is announced:

"Hemorrhagic Encephalitis," by Dr. James J. Putnam, of Boston.—"The Stigmata of Degeneration," by Dr. Frederick Peterson, of New York.—"Progressive Muscular Atrophy of Sudden Onset," by Dr. Theodore Diller, of Pittsburgh.—"Pitting about the Hair-Cups, a Trophic Change in the Skin in Certain Nervous Disorders of Central Origin," by Dr. William Browning, of Brooklyn.—"Brown-Sequard Paralysis with Report of a Case," by Dr. George C. Preston, of Baltimore.—"Report of a Case of Tumor of the Optic Thalamus, with a Consideration of the Mental Symptoms," by Drs. Walter Channing and Edward Wyllys Taylor, of Boston.—"A Case of Chronic Adult Chorea, with Pathological Changes Similar to those of General Paresis," by Dr. E. D. Bondurant, of Tuscaloosa.—"The Cerebral Complications of Raynaud's Disease," by Dr. William Osler, of Baltimore.—"A Nearly Constant Difference Between the Right and Left Paroccipital Fissures," illustrated by specimens and photographs, by Dr. Burt G. Wilder, of Ithaca.—"Report of a Case of Rapidly Fatal Cerebritis, Resembling Cerebro-Spinal Meningitis. Exhibition of Sections of the Brain, Mid-Brain, Pons, and Post-Oblongata," by Dr. James Hendrie Lloyd and Dr. Joseph Sailer, of Philadelphia.—"Late Results of Traumatic Neurasthenia," by Dr. David Inglis, of Detroit.—"Notes on the Prognosis and Duration of Attacks of Mental Disease," by Dr. Henry R. Stedman, of Boston.—"Cases of Brain Tumor, with Operations," by Dr. Philip Zenner, of Cincinnati.—"Report of the Committee on Neuronymy," by Dr. Burt G. Wilder, of Ithaca.—"Nerve Disturbances from Indigestion," by Dr. Henry S. Upson, of Cleveland.—"The Dorsal Sack, the Aulix, and the Diencephalic Flexure," by Dr. Burt G. Wilder, of Ithaca.—"Clinical Study of Some Cases of Insanity in Adolescence," by Dr. Richard Dewey, of Wauwatosa.—"Edema of Eyelids in Graves's Disease. Thyroidectomy Presentation of Patient," by Dr. J. Arthur Booth, of New York.—"Does Antisyphilitic Treatment Prevent the Occurrence of the Diseases of the Nervous System which are Considered Syphilitic in Origin? A Statistical Study," by Dr. Joseph Collins, of New York.—"A Contribution to the Pathology of Epilepsy, and a Resumé of the Utility of Operations in Epilepsy," by Dr. Joseph Collins, of New York.—"The Spinal Cord in Cancer, with Report of a Case," by Dr. Charles W. Burr, of Philadelphia.—"Toxicity of the Nervous System as a Cause of Pulmonary Consumption," by Dr. Thomas J. Mays, of Philadelphia.

GRAEME M. HAMMOND, M.D., is secretary of the Association.

Ohio State Medical Society.—The following preliminary program of the fifty-first annual meeting of the Ohio State Medical Society, to be held at Columbus, O., May 27, 28, and 29, is announced. The annual address will be delivered by DAN. MILLIKEN, M.D., president. The following papers have been promised:

Professor Thomas, State University: "A Practical Demonstration of Röntgen Rays." Jas. T. Whittaker, M.D., Cincinnati: Address in Medicine, "The Neurosis of the Stomach." Wm. Thomas Corlett, M.D., Cleveland: "The Present Status of Vegetable Parasitic Diseases of the Skin." Thomas W. Jackman, M.D., Akron: "Extensive Skull Fracture with Unusual Symptoms; Operation; Recovery." R. Harvey Reed, M.D., Columbus: "A Review of the Results of the Author's Method of Anchoring the Kidney." N. Stone Scott, M.D., Cleveland: "Seminal Vesiculitis." E.

C. Brush, M.D., Zanesville: "Typhoid Fever." John A. Thompson, M.D., Cincinnati: "Acute Purulent Inflammation of the Middle Ear." W. H. Humiston, M.D., Cleveland: "A Method of Preventing Thirst after Celiotomy, with a Study of the Urine." C. R. Holmes, M.D., Cincinnati: "The Accessory Cavities and Their Relation to the Eye; Report of Cases and Presentation of Specimens." J. F. Baldwin, M.D., Columbus: "The Technique of Abdominal Supravaginal Hysterectomy." Max Thorner, M.D., Cincinnati: "Serious Complications of Suppuration of the Middle Ear." J. S. Haldeman, M.D., Zanesville: "Contagion and Diagnosis of Scarlet Fever." J. C. Oliver, M.D., Cincinnati: "The Radical Cure of Inguinal Hernia." S. S. Haldeman, M.D., Portsmouth: "Antitoxin in the Treatment of Diphtheria." H. D. Hinkley, M.D., Cincinnati: "Conservative Pathology." Hunter Robb, M.D., Cleveland: "On the Causes and Mechanism of Retroflexion and Retroversion of the Uterus." M. Rosenwasser, M.D., Cleveland: "Phlegmasia Alba Dolens following Laparotomy." J. E. Fackler, M.D., Versailles: "The Treatment of Diphtheria." B. L. Milliken, M.D., Cleveland: "Some of the Accidents of Cataract Operations." James E. Pilcher, M.D., Captain in Medical Dep't, U. S. Army, Columbus: "The Present Status of Military Medicine and Surgery and their Relation to General Practice." W. J. Gillette, M.D., Toledo: "Perforating Ulcers of the Stomach." A. B. Richardson, M.D., Columbus: "Influence of Heredity." Wm. Thomas Corlett, M.D., Cleveland: "Modern Status of Specific Urethritis, with Its Treatment." George W. Crile, M.D., Cleveland: "Research into the Technique of Laryngeal Operations, with Report of Four Successful Total Extirpations." Lantern slide exhibit. H. B. Gibbon, M.D., Tiffin: "Rational Medicine." Joseph Ransohoff, M.D., Cincinnati: "The Surgery of Tubercular Lesions." S. S. Thorn, M.D., Toledo: "Four Cases, Representing Periods in the Evolution of Treatment of Hip-joint Dislocation." C. A. L. Reed, M.D., Cincinnati: "The Conservative Tendency in Abdominal and Pelvic Surgery." John P. Sawyer, M.D., Cleveland: "Some Observations of Malarial Organisms in Close Connection with Typhoid Fever." M. Stamm, M.D., Fremont: "Intestinal Obstruction; Some Diagnostic Points." W. A. Mellick, M.D., Zanesville: "Lachrymal Obstruction." Chas. N. Smith, M.D., Toledo: "Pelvic Hematocele and Hematoma." F. F. Lawrence, M.D., Columbus: "Salpingitis." J. W. Thomas, M.D., Marion: "The Treatment of Pneumonia."

An Opinion.—What the *Journal of the A. M. Ass.* thinks of the *Record*:

"EIGHTY PAGES IN THIS NUMBER"

Conspicuously displayed on its title-page the *New York Medical Record* week by week announces the number of pages in each issue. That of last week reads, "Seventy-six pages in this number"; that for the week before reads, "Eighty pages in this number." The inference intended to be drawn is, of course, that these are the specified number of pages of reading-matter in the respective issues. As a matter of fact, there were thirty-six pages of reading-matter in each of these two numbers, and forty and forty-four pages of advertisements respectively, about one-fifth of which is advertising-matter devoted to the interests of the commercial house by which the *Record* is owned. Without venturing to express an opinion on the relative merits of the two classes of matter, reading and advertising, still we cannot refrain from speculating upon the mental caliber of the readers of that periodical who, as its editor evidently thinks, can be gulled by such a specious pretense.

Confidential Communications.—The House of Representatives at Washington has passed the bill providing that in the courts of the District of Columbia no physician or surgeon shall, without the consent of the patient he may be attending, or the patient's legal representative, disclose any confidential information which he, the doctor, shall have acquired in attending the patient in a professional capacity. It shall make no difference whether such information shall have been obtained from the patient, or from the patient's family, or from the persons in charge of the patient. This bill does not apply to evidence in criminal cases.

While this bill was in committee, the six justices of the Supreme Court of District of Columbia recommended its defeat, on the ground "that such legislation would be detrimental to the administra-

tion of justice." They claimed that the privilege extended to communications between legal adviser and client at common law was based upon public policy, and had direct reference to the administration of justice, which required "the aid of men skilled in jurisprudence, in the practice of the courts, and in those matters having the rights and obligations which formed the subject of all judicial proceedings." The reason for the rule was said to be that without it no man "would dare to consult a professional adviser with a view to his defense or enforcement of his rights." The district justices held that no such reason exists, or applies, as to communications made by patients to physician, and they further said that "it clearly failed with reference to knowledge derived by physician from observation." There was no occasion, they held, for the provision in the bill that excluded information obtained through the family or others attending the patient, inasmuch as the "rule of evidence excluding hearsay testimony accomplished that." The justices further held that the enactment cited by the bill would be a serious obstruction to contests over life insurance, personal injury from negligent or willful act, wills, and others in which mental capacity might be involved. They went on to say that in raising their objections, the common-law rule giving no privilege to physicians' discoveries has been modified in only 20 States and Territories. New York is the only Atlantic-coast State, and Arkansas the sole Southern State. In answer to the justices, the District of Columbia Medical Society cited the dates of enactment in the several States and Territories, showing that some of the laws go back as far as 1872. They held that the citation of one Atlantic-coast and one Southern State was fallacious, and partook of the nature of derisive appeal to geological, sectional, or local prejudices. New York's statute of exemption, they held, might be accepted as testimony in the support of the justice of such legislation, inasmuch as this State is the largest, most populous, and wealthiest of the 13 original States. More than this, there has as yet been neither judicial nor popular remonstrance against such statutory protection of physicians from the compulsory disclosure of the confidential communications of the latter State's sick citizens. On the other hand, they held that Arkansas was old enough, and her citizens sufficiently advanced in civilization, to know how best to protect her citizens in their private rights and privileges. The District Medical Society cited these two States as exemplars "worthy of the emulation of their sister-States still lagging in the tradition of the common law, transmitted to us through English descent."

Detroit College of Medicine.—At the twenty-seventh annual meeting, on May 12, the following trustees were elected: S. D. MILLER, L. S. TROWBRIDGE, R. H. FYFE, W. C. WILLIAMS, S. M. CUTCHEON, DANIEL J. CAMPAU, E. H. BUTLER, FRANCIS PALMS, and Drs. T. A. MCGRAW, H. O. WALKER, E. L. SHURLY, E. C. SKINNER, CHARLES DOUGLAS, J. H. CARSTENS, and J. B. BOOK. The trustees, in turn, elected: S. D. MILLER, president; Dr. E. L. SHURLY, vice-president; Dr. H. O. WALKER, secretary; and L. S. TROWBRIDGE, treasurer.

Heirlooms.—According to the *American Medico-Surgical Bulletin*, an English bacteriologist has "had the audacity" to examine some beautiful old tapestries that have hung for generations upon the walls of a country mansion. He found them "teeming with tubercle bacilli." Our contemporary from over the water remarks, "What a blow this

sort of thing would be to the possessors of old family relics if its force could be fully felt!" Quite so, but we should like to make one or two small remarks upon the tubercle bacillus. Bacteriology is the science in medicine and surgery nowadays, and there are few people to be found who do not believe in the potency of "bugs" for good or for evil. The tubercle bacillus is considered by nearly everybody to be the root of phthisis and other tubercular diseases, although in some cases it cannot be detected. We were once told a very curious statement—one which we should like to hear substantiated or combated—namely, that there is to be found in the smegma præputialis of newborn infants a bacillus which stains like that of tubercle, and in every respect is indistinguishable from it. Possibly some of the readers of the *MEDICAL TIMES* can give some information regarding this statement.—*Medical Times and Hosp. Gaz.*

Ancient Utrecht.—On June 22 to 27, inclusive, the University of Utrecht will celebrate its 260th anniversary.

New Quarantine Regulations.—Secretary CARLISLE has issued an order designed to prevent, so far as possible, the danger of the spread of contagious diseases by the scattering of immigrants to city and country districts. After arrival at a quarantine station of a vessel on which there has appeared during the last voyage a case of cholera, smallpox, typhus fever, or plague, and after quarantine measures have been enforced and the vessel receives free pratique, the above facts shall be transmitted by the quarantine officer to the commissioner of immigration at the port of arrival. It shall be the duty of the commissioner of immigration to telegraph to the State health authorities of the several States to which immigrants from said vessel are destined, the date of departure, route, number of immigrants, and the point of destination of the immigrants to these respective States from the said vessel. He is also to give information regarding the holding of the immigrants at quarantine by reason of infectious diseases, and shall name the diseases. This information shall be given to the State health officers, so as to enable them to maintain surveillance over immigrants who may be intending to locate in their several States.

Jurymen as Bacteriologists.—A case was recently tried in the Queen's Bench Division of the High Court of Justice in England, in which action was brought for breach of promise to marry by a certain young lady against a physician. Friendship led up to an engagement, and matters ran smoothly until the death of the *fiancée's* mother from tuberculosis, when the affianced announced his disinclination to observe his engagement, or ratify his part of the contract, whereupon the young lady sought action for redress in the courts. When the case came up for trial counsel representing the physician offered as his defense the death of the girl's mother from tuberculosis, arguing the danger that his client would submit himself to by an alliance in which tubercular progeny must necessarily result. Notwithstanding the fact that the young lady's physical appearance failed to show the slightest evidence of the existence of a predisposition to tuberculosis, it was maintained that immunity was not possible, and hereditary transmission must necessarily attend the probable result of a matrimonial union. Whether or not the physician calculated upon the effect anticipated in presenting a pseudo-scientific defense is not known. Perhaps the average jurymen would understand so little about the transmission of tubercle bacilli as to render his appreciation of the situation embarrassing

where justice demanded that all the facts be considered well, but this jury was an "up-to-date" panel, prepared to grapple with questions of a medico-bacteriological character, and it found for the plaintiff with damages at £1000. No doubt the doctor has learned ere this that experience is an expensive school, and that the amount of damages mulcted might have been profitably invested in a course of study in the rudiments of bacteriology. But he has saved himself from the possibility of tuberculous progeny— notwithstanding that not a single indubitable case of congenital tuberculosis has thus far been observed in man, a fact that it would seem the jury had cognizance of, judging from the verdict rendered.

Mystifying Prescriptions.—A new method of writing prescriptions is recommended by Dr. LÖFFLER in the *Aerzt. Corrs.-bl.* He draws attention to the fact that in writing for new remedies the names of which are too frequently familiar to the public, the old method of prescribing in the Latin language no longer offers to the physician protection against the uncomfortable criticism of the laity. He therefore believes it necessary in many instances to employ a form of prescription less comprehended by the public. With this object in view, Dr. LÖFFLER has for some time past made use of the Greek alphabet, though still adhering to the Latin nomenclature, and his prescriptions have readily been deciphered by all druggists to whom they have been submitted. For example, he prescribes anti-pyrene powder in the following manner:

αντιπυρεν..... 1.0
Δ. ταλ. Δωσ. Νο. X
Σ Daily, etc.

[The average Latin prescriptions are Greek to the layman, as it is—even the pharmacist finds it difficult to decipher many of them. If the Greek characters are not written neatly, there will be much chance for error in filling the same. Leave bad enough alone.—ED.]

The Association Doctor.—The recent move by the medical profession in England to prevent the employment of physicians on contract by clubs or societies for the treatment of its members at reduced rates, seems to have met with substantial support. It is maintained that people of standing and means become members of such clubs for the sole purpose of reaping the benefits, in a pecuniary way, that they offer, and that persons well able to pay a fee to the physician secure medical attendance for themselves and their families at the (nominal) club rate. Measures taken by the profession to root out the evil have forced the societies to realize that the physician is no longer their tool. Meantime these bodies have been considering what steps to take to retain their grip on the physician. A recent conference was held at Wednesbury, at which it was proposed to ask Parliament to grant a medical certificate to medical students, presumably with the object of authorizing the appointment of such certificated students as association medical officers.

The Incorporated Medical Practitioners' Association, organized for the protection of the interests of the physician, intends to compel fair treatment of medical men holding club appointments, and the pace at which its membership-list has increased since the matter was taken up for action by that body appears to be conclusive evidence that it intends to assert their rights and uphold the function it professes to perform. The employment of physicians at a small allowance *per capita* for professional service is as well known in this country as to

our brethren across the water, and the injustice it inflicts upon the general practitioner is as much a subject of complaint among medical men affected by it. The class benefited, in a great majority of cases, is that which is the best able to pay for such service, and the doctor who willingly gives his professional services for a paltry fee to such persons compromises the dignity and status of the physician as a professional man, and will ultimately inflict upon himself the alternative of accepting rates in keeping with the liberality and principles that exact from a professional man professional services at pauper rates, but not compensation sufficient to retain him within the sphere of his more sensible brother who enjoys the confidence and esteem of his *clientele* and is thought better of for demanding a professional fee, or retiring from practice and taking up a trade. Associations that aim at bettering the condition of their members by such means consist largely of trades-union men capable of dealing only with a biased and self-concerned view of all things that contribute to the increase of their own earthly riches, and incapable of dwelling upon the right or considerations of others. Their principles are a mass of flagrant inconsistencies, and so long as the physician is simple enough to allow them to grind out his services at so many cents per patient, while they demand a uniform schedule of prices for work they do, just so long does he merit the self-imposed injustice that is heaped upon him.

The Morphology of Bacteria in 1665.—In "The History of the Plague in London," 1665, Daniel De Foe (better known as the author of "Robinson Crusoe") relates some of the methods which were followed to discover whether or not people were infected with the terrible sickness which devastated the great city. We quote the following: "I have heard it was the opinion of others that it (infection) might be distinguished by the party's breathing upon a piece of glass, where, the breath condensing, there might living creatures be seen by a microscope, of strange, monstrous, and frightful shapes, such as dragons, snakes, serpents, and devils, horrible to behold. But this I very much question the truth of; and we had no microscopes at that time, as I remember, to make the experiment with."

De Foe had a superb imagination, and in this history he seems a reverent and God-fearing man. We might almost think of him as the prophet of the science of bacteriology, if he had not appended an expression of doubt about what he had written. To be sure we have not caught up with all that was revealed two hundred years ago and more upon a piece of glass. We do not identify bacilli so easily, and our discoveries of round, rod-shaped, and curved organisms seem meager compared with the frightful forms enumerated. This dreadful plague, which was the scourge of Europe for a thousand years, wrought misery enough to entitle it to a high place among pestilential things, and we have sympathy with the description which links its manifestation with "dragons, snakes, and devils, horrible to behold."

Dinner of St. Luke's Alumni Association.—Fifty-five of the alumni met at dinner in the Red Room of the Savoy Hotel, Tuesday evening, May 19. Dr. A. A. DAVIS, the president of the association, presided, and Dr. CHAS. F. COLLINS acted as toastmaster. The speakers of the evening and their subjects were as follows: GEORGE MACCULLOCH MILLER, president of the Board of Governors, "The Managers of the Hospital"; PERCY SANDERSON, British Consul in New York, "The Managers Ex-officio"; Dr. ANDREW H. SMITH, "The

Medical Staff"; and Dr. CHARLES S. BULL, "The Surgical Staff of the Hospital." "Our Sister-societies" was responded to by Drs. JOHN F. ERDMANN, P. R. BOLTON, and R. GUITÉRAS. They represented the alumni societies of Bellevue, New York, and Charity hospitals respectively. Mr. MILLER spoke of the necessary predominance of the board of managers in the affairs of a hospital until the institution was established, equipped, and endowed. When this had been accomplished the board of managers and the medical board should labor hand in hand and in perfect accord. He expressed the belief that in the establishment of the Pathological Building, with opportunities for most thorough scientific research, an avenue had been opened which would lead to the greatest benefits to humanity. Dr. WILLIAM H. CARMALT, of New Haven, Conn., has been elected president for the ensuing year.

The State Board of Health of Indiana, at a meeting in Indianapolis a few days since, adopted a resolution declaring that the act of 1891 establishing and supporting that board was only partially operative and quite inadequate to the ends aimed at, and that the board will memorialize the Assembly of 1897 to pass an act adequate to secure the proper objects of a health law and repeal the present act. It is quite a unique proceeding for any board of officers to ask to be put out of office, but doctors have come to the conclusion, from their experience in endeavoring to enforce the present act, that it is not what a law of this kind should be, and that the only way open for them is to draft a new law, using their best knowledge and experience, and to ask the Legislature to better the condition of things.

At the session of the health officers of the State at which this resolution was adopted, Dr. RAMSAY, president of the State Board, occupied the chair, and there were about forty health officers from the various counties present. Governor MATTHEWS delivered the address of welcome, which was responded to by Dr. W. R. FRANCIS, of Marion.

Among the papers read at the meeting were the following: "Whose Duty it Shall Be To Devise Plans To Meet Emergencies," T. F. LEECH, Crawfordsville; "To Solicit a More Liberal Appropriation for Health Purposes," W. R. FRANCIS, Marion; "Whose Duty it Shall Be To Define the Duties and Powers of Health Officers," S. N. HAMILTON, Connersville; "Redistricting the State for Sanitary Purposes," S. H. PEASE, Mt. Vernon.

Coming Society Meetings.—The following is a complete list of coming society meetings up to date of June 5, and is ahead of previous records. The medical man in search of scientific enlightenment has no reason to complain for want of a field from which to make a selection:

American Gynecological Society, at New York, May 26, 27, 28. HENRY C. COE, secretary, 27 E. 64th street, New York city.

American Pediatric Society, at Montreal, Can., May 25, 26, 27. SAMUEL S. ADAMS, secretary, 1 Dupont Circle, Washington, D. C.

Arizona Medical Association, at Prescott, Ariz., May 28, 29, 30. L. D. DAMERON, M.D., secretary, Phoenix, Ariz.

Connecticut Medical Society, at New Haven, Conn., May 27, 28. N. E. WARDEN, M.D., secretary, 174 Fairfield avenue, Bridgeport, Conn.

Indiana State Medical Society, at Fort Wayne, Ind., May 28, 29. KENT K. WHELOCK, M.D., secretary, Fort Wayne, Ind.

Ohio State Medical Society, at Columbus, May 27, 28, 29. THOS. HUBBARD, M.D., secretary, Toledo, O.

American Medico-Psychological Association, at Boston, Mass., May 28, 29, 30. HENRY M. HURD, M.D., secretary, Johns Hopkins Hospital, Baltimore, Md.

Ontario Medical Association, at Windsor, June 3 and 4. J. N. E. BROWN, M.D., secretary, 186 King street, Toronto, Canada.

Rhode Island Medical Society, at Providence, June 4. FRANK L. DAY, M.D., secretary, Providence, R. I.

Wisconsin State Medical Society, at Superior, June 3, 4, 5. CHARLES S. SHELDON, M.D., secretary, Madison, Wis.

Indian Territory Medical Association, at Wagoner, June 2 and 3. J. G. RUCKER, M.D., secretary, Claremore, Ind. Terr.

Maine Medical Association, at Portland, June 3. CHARLES D. SMITH, M.D., secretary, 126 Free street, Portland, Me.

Michigan State Medical Society, at Mount Clemens, June 4 and 5. C. H. JOHNSTON, M.D., secretary, Grand Rapids, Mich.

New Hampshire Medical Society, at Concord, June 1 and 2. G. P. CONN, M.D., secretary, Concord, N. H.

American Association of Genito-Urinary Surgeons, at Atlantic City, first week in June. WM. K. OTIS, M.D., secretary, 5 West Fiftieth street, New York city.

American Neurological Association, at Philadelphia. GRAEME M. HAMMOND, M.D., secretary, 58 West Forty-fifth street, New York city.

Navy Items.—Medical Inspector R. A. MARMION was detached from the *Newark*, ordered home, and placed on waiting orders.

Surgeon L. B. BALDWIN was detached from the *Cincinnati* and ordered to the *Newark*.

Surgeon N. H. DRAKE was detached from the *Franklin* and ordered to the *Cincinnati*.

Passed Assistant Surgeon I. W. KITE was detached from the Naval Hospital at New York and ordered to the *Franklin*.

Passed Assistant Surgeon P. LEACH was detached from the Naval Laboratory, New York, and ordered to the Naval Hospital, New York.

Medical Inspector R. A. MARMION was ordered as member of the Board of Inspection and Survey, June 3, and member of Medical Board, Navy Yard, Washington, D. C.

Medical Director W. K. VAN REYPEN was granted three months' leave of absence from June 3, with permission to leave the United States.

Abroad.—According to recent cable dispatches, the University of Budapest, in commemoration of the Millennium celebration, has been authorized by Emperor FRANCIS JOSEPH to confer the honorary degree of Doctor of Medicine on Dr. JOHN SHAW BILLINGS, of Philadelphia.

The title of "Hofrath" has been conferred upon Drs. GUSSENBAUER, ERNST FUCHS, and RUDOLF CHROBACK, professors-in-ordinary of the University of Vienna.

The late Professor SPAETH, of Vienna, left his whole estate for charitable purposes. The Society for the Care of Sick Students receives 400,000 gulden (\$200,000), and 40,000 (\$20,000) are set aside for the creation of a fund for indigent students.

According to the *Medical Press and Circular*,

Queen VICTORIA has signified her intention of subscribing 100 guineas to the fund now being raised for the re-endowment of Guy's Hospital. The total amount of donations will be announced by the Prince of Wales on the occasion of the dinner at which he will preside at the Imperial Institute on June 10.

The German Association of Public Health will hold its twenty-first meeting in Kiel from the 10th to the 13th of September, 1896.

The autopsy upon the body of Professor LANGERHAN's son, who was said to have been killed by an injection of BEHRING's antitoxin, revealed no cause of death. The result of the chemical analysis of the antitoxin employed in the case has not as yet been announced.

Personal.—Dr. DONALD MACLEAN has resigned his appointment as surgeon-general of the Grand Trunk Railway line, west of the Detroit river. Dr. TRUMAN W. MILLER, of Chicago, has been appointed to fill the position.

Dr. WILLIAM P. MATHEWS, of Manchester, Va., has been elected professor of general and special anatomy, to succeed Dr. LEWIS C. BOSHER at the Medical College in Richmond, Va. Dr. BOSHER two months ago was chosen to fill the chair of principles of surgery.

Dr. H. T. DANA has been appointed as physician for the Elmira, Cortland, and Northern division of the Lehigh Valley Railroad.

Dr. W. H. ROSE, of St. James, and Dr. N. H. BLACK, of Minneapolis, have been commissioned assistant surgeons in the Minnesota National Guard, with the rank of first lieutenant.

Obituary.—Dr. AMOS H. JOHNSON, in Salem, Mass., on May 12, aged 65 years. He was graduated from the Harvard Medical School in 1862, after having served six years as pastor of the Middletown, Mass., Congregational Church, after graduation from the Andover Theological School. He was at one time president of the Essex South District Medical Society; was a delegate from the Massachusetts Society to the International Medical Congress in Philadelphia; was for a time president of the Massachusetts Medical Society, and orator at its anniversary in 1883. For the past 15 years he had been a member of the medical staff of the Salem (Mass.) Hospital, and from the opening of the Danvers (Mass.) Lunatic Hospital until the close of his active life he was one of the consulting staff of that institution. In nervous diseases Dr. JOHNSON was especially capable.—Dr. FRED. DUNNING, in Easton, Md., aged 24 years, on May 8. He was graduated from the Jefferson Medical College.—Dr. A. P. ROGERS, at his home in Canon City, Col., on April 26, aged 59 years.—Dr. BENJ. MALONE COLLINS, at Penn's Park, near Fairfax Courthouse, Va., on May 6. He was graduated from the University of Pennsylvania, in 1854.—Dr. WM. D. MILLES, in Paris, France, April 26, aged 53 years.—Dr. J. C. PATTERSON, of Rochester, N. Y., on May 10, aged 73 years.—Dr. JOHN SCHALLER, at his home in Chicago, on May 7. He was one of the pioneer German physicians of Chicago, and one of the prime movers in the establishment of the German Free Dispensary in that city.—Dr. ALEXANDER J. CHISHOLM, Antigonish, N. S., on May 9, aged 28 years.—Dr. C. B. PARKER, of Leesburg, Fla., on May 7, aged 31 years.—Dr. FRANCIS RAE, of Whitby, Ont., recently appointed registrar of Ontario County, died in Oshawa on May 8. He was graduated from the medical department of the University of Toronto in 1865.

PUBLISHERS' DEPARTMENT

THIRTY POUNDS IN THREE MONTHS

The following letter has been received by the McArthur Hypophosphite Co., from Allentown, Pa.:

I have been using your preparation since 1887, when I first prescribed it in a case of phthisis (3d stage) in a patient who only weighed 87 pounds. . . . Have used it in chronic bronchitis and other pulmonary affections, with the best results. I cannot speak too highly of your preparation, and in affections of the lungs or bronchial tubes I first and last prescribe "McArthur's" always in the original package, as I have learned a lesson, since a druggist dispensed "stock" hypophosphites, instead of your preparation, when I had particularly specified "McArthur's."

W. N. POWELL, M.D., 936 Hamilton street.

ABOUT MUCO-LUBRICANS

A highly interesting and scientifically valuable paper appeared in the last issue of the BULLETIN regarding lubricants, and giving in detail particulars concerning a new lubricating fluid originated by Dr. H. B. DUNHAM, 48 Washington street, Boston. This substance, which every practitioner must appreciate by use, is so slippery that greased lightning is said to be the choice, for place only, of those who are familiar with the two. It is desirable and applicable to the greatest variety of uses, and, more than this, is cheapest. Added to this, its use provides the surface of the body, wherever applied, with a perfect antiseptic substance. There is, therefore, a lessening of danger of infection, particularly in obstetrical cases. Prominent gynecologists pronounce muco-lubricans superlatively excellent. Hundreds of cases, they declare, have demonstrated its value. There is an interesting advertisement concerning the article elsewhere in this issue. The C. N. Crittenton Co., 115 Fulton street, New York, are the agents in this city.

MALT-NUTRINE

One of the most gratifying occurrences to the medical profession and the educated laity has been the advent of the Anheuser-Busch's "Malt-Nutrine." Not content with making the finest beers in the world, the Anheuser-Busch Brewing Association have now entered a domain in which their enormous capabilities, skill, pluck, and advanced ideas have created a revolution.

Medical men have long deplored the fact that the malt-extracts at their command were open to a number of objections. They desired a malt that should be a food and a non-alcoholic stimulant, in a palatable form. Recognizing the wants of the profession, the A.-B. B. A. have produced the ideal malt preparation, and the only one that fully comes up to the standard set by the profession—i.e., palatable, rich in extract, and non-intoxicating. The market is flooded with so-called malt-extracts, which are simply alcoholic stimulants, and others, of a kind which physicians do not care to use.

The stimulation consequent upon nutrition is what the physician desires in the majority of cases, and that is obtained in the highest degree from the use of Malt-Nutrine, which is so easily assimilated that the digestive organs are not taxed.

In insomnia, general debility, nervousness, and the many neurotic ailments, Malt-Nutrine is recommended by our most prominent physicians as the malt-extract *par excellence*.

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ORIGIN AND NATURE OF CERTAIN BACTERIAL POISONS

ACCORDING to BUCKMASTER (*Biolog. Centralblatt*, XV, No. 3, p. 96), it is well known that the introduction of sterilized and filtered cultures of specific pathogenic organisms into the bodies of susceptible animals is followed either by death or immunity, according to the amount introduced; but whether the toxic substances in the cultures are identical with those which are active upon inoculation with a chemical body is not yet determined. Within the last few years attention has been directed to the character of bacterial poisons; and improved methods for isolating the micro-organisms from the cultures, together with the discovery of appropriate media for cultivation, have led to an alteration in the views formerly entertained regarding the nature of the chemical activity of the bacteria.

The history of this science has been written by PASCHUTIN (*"Cours d. Path. gen. et exp.,"* 1885), and more recently by GAMALEIA (*"Les Poisons bac.,"* 1892). SEYBERT'S studies in 1758 upon putrefaction were resumed at the beginning of the present century by GASPARD, MAGENDIE, and others; and STICH, in 1883 (*Charité-Annalen*), published the results of his labors upon the toxic properties of putrid albuminous bodies and fecal matters. His researches showed that the watery extracts of the solid excrement of an animal introduced into its blood acted fatally, but were inactive in the stomach, and, further, that the introduction of excrement of one species into the digestive tract of another caused the death of the latter. The classical experiments of PANUM (*Virchow's Arch.*, LX, 1874) upon putrefactive poisons definitely proved these to be unorganized substances; that they are

partially soluble in water, and induce symptoms of an acute intoxication which leads to a fatal issue; that they are partially soluble in alcohol and possess the same action as the alkaloids of opium.

PANUM'S researches exerted a powerful influence upon subsequent investigations. His experiments were confirmed and extended by numerous observations. A few investigators isolated impure toxic substances from putrid flesh and yeast, while the first analysis of a ptomaine, obtained by pancreatic digestion of gelatin, was made by NENCKI in 1876. Cultures of pathogenic bacteria, artificial digestions, and the various phases of putrefaction of organic substances provided a number of ptomaines and leucomaines, but only when the nutrient medium upon which the bacteria grew contained protein constituents. Furthermore, the substances discovered by one investigator differed in chemical as well as in physiological relation from those found by others.

These researches supported the view that the toxins originated by the bacteria resulted from a specific decomposition of albuminous bodies; but all subsequent labors have shown that this idea had to be abandoned, and although the bacterial poisons possibly stand in close relation to the albumins, they nevertheless exist in the majority of toxic fluids in imponderably small quantities. They can be secured in pure state only with the greatest difficulty, and an accurate knowledge of their physical and chemical properties is wanting.

Deductions as to the physical peculiarities of a few toxins may perhaps be made from their behavior in solubility-, filtration-, and dialysis-tests. CHARRIN and GLEY (*Arch. d. Phys.*, 1891) have distinguished three different groups of substances from cultures of

the bacillus anthracis and bacillus pyocyaneus, which differ in chemical, physical, and pathogenic properties.

The study of the action of dead bacteria upon the living body by PRUDDEN and HODENPYL (*N. Y. Med. Jour.*, 1891), STRAUSS and GAMALEIA (*Arch. d. Med. exp.*, 1891), GRANCHER and LEDOUX-LEBARD (*ibid.*, 1892), and VISSMAN (*Virchow's Arch.*, CXXIX, 1892) led to the view that the dead bodies of tubercle bacilli contain a toxin; furthermore, that these bacilli, directly injected into the vessels, give rise to a series of symptoms, at the acme of which death occurs. The autopsy then shows that various organs, especially the lungs, are infiltrated by very minute granulations consisting of epithelioid cells, and containing tubercle bacilli. The extent to which the organs are affected depends simply upon the amount of dead bacilli introduced. From experiments of this nature, the conclusion was drawn that dead tubercle bacilli contain a substance which gives rise to a tuberculous caseation, manifesting the same peculiarities as that produced by living bacilli. However, the study of the histogenesis of the tuberculous process revealed that granulation nodules, consisting of epithelioid and giant cells, are by no means specific pathological formations caused by living or dead bacilli, but, as BAUMGARTEN has shown (*"Hist. d. tub. Proc."*, 1885), that indifferent foreign bodies can call forth the same alterations. Therefore, the affection originated by the dead bacilli is not genuine tuberculosis, but a diseased state in which nodules resembling those caused by living bacilli are disseminated throughout the various organs.

Still, it is quite possible that a poison, or the precursor of such, is present, just as is the case with the enzymes and zymogens in the cell, and that it originates as a result of synthetic processes of the protoplasm. It is definitely known that wholly attenuated cultures form no specific toxins; though, according to BUCHNER (*Berlin. klin. Woch.*, 1890) and his colleagues, certain proteins, derivatives of the plasmatic contents of the bacterial cells, pass over into the culture fluids and excite to quite vigorous growth. These proteins possess the property of exciting acute leucocytosis and violent inflammatory reaction. Ferments capable of digesting albumin and starches have been proven to exist in pathogenic bacteria, and MACFADYEN (*Jour. of Anat. and Phys.*, 1892) showed that glycerin extracts of a few rapidly liquefying micro-organisms contain not only enzymes, such as trypsin and diastase, but that specific toxins can also be separated from the

cholera spirillum and vibrio Metchnikovi. With glycerin LÖFFLER (*Deutsch. med. Woch.*, 1895, Nos. 5-6) also extracted diphtheria toxin from cultures which had been grown upon chopped meat; but in this instance the poison was derived from the nutrient medium as well as from the bacilli. Regarding the question as to what extent a micro-organism produces a toxin as the product of its own metabolism the recent work of USCHINSKY is of importance (*Arch. d. Med. exp.*, 3, 1893). ROUX and YERSIN (*Ann. d. l'Inst. Past.*, 1888-90) consider the diphtheria toxin an enzyme; BRIEGER and FRÄNKEL (*Berlin. klin. Woch.*, 1890) speak of it as a toxalbumin, but at the same time they admit that the toxins of cholera, typhoid, and pathogenic staphylococci are globulins. According to other investigators the diphtheria toxin is an albumose, or a body closely related to peptone, or a form of nuclealbumin.

FERMI (*Cent. f. Phys.*, 1891) cultivated non-pathogenic micro-organisms upon Naegeli's fluid with addition of from 1 to 5 per cent. glycerin. From cultures of micrococcus prodigiosus and bacillus pyocyaneus he isolated enzymes which in their action resembled trypsin. GUINOCHET (*Arch. d. Med. exp.*, IV, No. 4) cultivated Löffler's diphtheria bacillus upon bouillon and also upon urine, and by filtration obtained a toxin. The action of the latter was not very intense, but sufficed to kill guinea-pigs. Since the toxin had also been secured in proteid-free media, he is of the opinion that the toxin should not be looked upon as a toxalbumin, and in a later research it was found that the chemical nature of this specific toxin could not accurately be determined. Many pathogenic organisms grow well upon a fluid, devised by GAMALEIA, which is wholly free of albumin, but contains glycerin, common salt, and Liebig's meat extract.

USCHINSKY's researches led to a nutrient medium which contained neither albumin nor peptone, but simply well-known chemical substances. In his first contribution the medium had the following composition:

Water	1000
Glycerin	40-50
Sodium Chloride	5-7
Ammonium Lactate	10
Calcium Chloride	0.1
Magnesium Sulphate	0.2
Potassium Biphosphate	1

In the case of a few pathogenic organisms—e.g., Löffler's diphtheria bacillus—0.5 per cent. of urea or 0.02 per cent. uric acid was added, and, in a few instances, variable amounts of sugar also.

Neither the tubercle bacillus nor Eberth's ty-

phoid bacillus grew upon this fluid; on the other hand, the cholera spirillum and vibrio Metchnikovi developed luxuriantly. If the Löffler bacillus is grown upon fluids free of urea and uric acid a filtrate will be obtained the toxicity of which is not very pronounced, since from 13 to 15 c.c. of it are required for a lethal dose. If, on the other hand, it is grown in the presence of urea or uric acid a filtrate which kills in amounts of 1.5 c.c. is secured. The cultures are certainly very different in virulence; their attenuation in the first instance is permanent. The subsequent generations derived from the cultures primarily attenuated upon USCHINSKY's medium retain this property even when they are grown upon ordinary glycerin bouillon. When the cholera and diphtheria toxins are examined as to their chemical behavior, it is found that they give MIL-LON's albumin reaction, likewise the biuret and xantho-protein reactions. Mercury bichloride, alcohol, lead acetate, acetic acid with potassium ferrocyanide give a precipitate, the diphtheria toxin only not giving the last reaction. From the distinct response to these reactions it may be concluded that the cholera and diphtheria toxins are proteid bodies similar to the peptones or the albumoses, and that they are formed synthetically by the micro-organisms. The latter part of this conclusion is probably correct and of great interest, though further chemical researches are necessary before the proteid nature of these toxins can be considered established.

In a later contribution (*Cent. f. Bakt. u. Parasitk.*, Sept., 1893) USCHINSKY published the results of further studies upon the toxins produced by the typhoid, cholera, diphtheria, and tetanus bacilli when the fluid upon which they were cultivated had the following composition:

Water	1000
Glycerin	30-40
Sodium Chloride	5-7
Calcium Chloride	0.1
Magnesium Sulphate	0.2-2
Dipotassium Phosphate	2-2.5
Ammonium Lactate	6-7
Sodium Asparaginate	3-4

The tetanus bacillus grew upon this when 1-2 parts sugar were added and admission of oxygen was prevented by an alkaline solution of pyrogallie acid. Development then proceeded through the same phases as are observed in cultures of bouillon media, the bacilli being somewhat more slender than normal. The filtered cultures had intense toxic properties; 6-8 c.c. sufficed to kill a rabbit of medium size. The toxin contained in the filtrate is destroyed by addition of alcohol, even when it is concentrated in a vacuum at 30°-36° C. The

toxin of the filtrate is obtained by precipitation with calcium phosphate, a method first employed by BRÜCKE for the separation of the ferments of the gastric juice. Chemically, according to USCHINSKY, the toxin resembles an enzyme; this view is supported by earlier researches of ROUX and YERSIN upon diphtheria, and also by ARLONG and others.

When tetanus bacilli gain admission to the organism, they always produce a toxin which is distributed throughout the body from the point of infection. The observations of COURMONT and DOYON (*Soc. d. Biol.*, Nos. 10 and 21, 1893) sustain the hypothesis that the toxic substances which cause tetanus originate within the organism as the result of the action of a soluble ferment formed by the bacillus of NICOLAÏER. The investigators mentioned believe that the substance which gives rise to the spasms is a toxin similar to strychnine, which excites the typical contractions by irritation of the terminal portions of the sensory nerves. But this is not the true tetanus toxin, which appears to be a pathogenic ferment, because after intramuscular, subcutaneous, or intracirculatory injection of 3 to 4 c.c. of the filtrate of the tetanus culture, 24-36 hours elapse before the development of action, and also because this period of time cannot be abridged by injection of a hundred-fold the quantity; therefore, the filtrate certainly does not act immediately. If the blood of one animal with developed tetanus is transferred to another, the infected animal is immediately thrown into the tetanic state, which continues until the excretion of the toxin. From this it is seen that the body or bodies present in the filtrate of the tetanus bacilli exert a physiological action wholly different from that exerted by the bodies contained in the blood; and from the muscles of animals killed by tetanus a toxin similar to strychnia can also be obtained which remains resistant to long boiling, while even a temperature of 65° C. destroys the toxin contained in the filtrate. These experiments unquestionably justify the conclusion that the bodies which give rise to tetanus originate through the action upon the organism of a soluble ferment or enzyme produced by Nicolaïer's bacillus.

The tetanus toxin can quite readily be destroyed. Chemical and physical agents—*e.g.*, a temperature of 65° C. for five minutes, direct sunlight acting for fifteen to eighteen hours, weak acids and alkalis—destroy the effectiveness of a tetanus filtrate; and it is quite impossible to precipitate the toxin without at the same time partially or wholly depriving it of

its specific peculiarities. Time and again attempts to isolate the tetanus toxin have been made; the last work in this direction is that of BRIEGER and COHN (*Zeitschr. f. Hyg.*, 1893). Tetanus filtrates differ in virulence according to the medium upon which the bacillus is grown; a concentrated, impure toxin employed by KITASATO, which was three times as strong as the direct toxin, was obtained from a nutrient medium consisting of veal broth containing 1 per cent. of peptone and 5 per cent. of common salt. At first the toxin was precipitated from the sterile filtrate by saturation with ammonium sulphate. The precipitate floated upon the surface; it was lifted off, separated from the fluid upon porous plates, and dried *in vacuo*. All the toxin was found in the precipitate, for the remaining liquid was not toxic. The raw toxin thus prepared contained about 6 per cent. ammonium sulphate and other salts, proteins, and peptone, amido acids, and volatile aromatic substances; its effectiveness was not interfered with either by heating to 60° C. or by absolute alcohol containing 1-per-cent. mercury bichloride. The protein impurities were removed by basic acetate of lead with a trace of ammonium, those remaining by means of dialysis. By evaporation of the dialyzed fluid *in vacuo* at 20° C. the tetano-toxin is obtained in the form of light yellow, transparent scales, which are soluble in water, and turn the polariscope to the left. It contains but little ash constituents, and gives many of the ordinary albumin reactions. Calcium phosphate, successfully employed by ROUX and YERSIN in their researches upon diphtheria, does not precipitate the toxin out of its solutions, as is the case with enzymes. The toxin is free of phosphorus. Although the specific tetanus toxin resembles the proteins no less than do other bodies, in that it gives the biuret reaction and a precipitate with ammonium sulphate, still authorities are averse to assign it a position in the group of proteins, because it does not agree in its chemical behavior with the members of this series. The amorphous cholera toxin has also been examined by BRIEGER and COHN in cultures upon USCHINSKY'S nutrient fluid without addition of magnesium sulphate. According to them, this is not to be classed with what is ordinarily understood by "albumin bodies."

The toxins isolated by both investigators certainly represent a very strongly concentrated form of the poison; for even 0.23 mg. constitutes a lethal dose for an adult. Some idea of its virulence may be obtained by comparing it with that of atropine and strychnia, of which at least 130 mg. and 30-100

mg. are required for a lethal dose. It is possible, however, that this research has not as yet revealed the true toxin. The labors of numerous investigators have demonstrated that the amorphous products of micro organisms may be serviceable as well as injurious to the body; they are probably the result of synthetic action of definite bacteria, and probably exist in the protoplasm; but the true physical and chemical properties of the substances are still unknown. Just as the observation of the peptonizing or starch-dissolving action is the only real proof of the presence of pepsin or ptyalin, so, also, the specific toxic phenomena called forth by the toxins of specific micro-organisms are, in many instances, much more characteristic and more reliable in the diagnosis of these than are the few chemical and physical reactions which to-day are at our disposal.

ORIGINAL CONTRIBUTIONS

MYXEDEMA *

By G. HODGE, M.D.

Assistant Professor of Clinical Medicine, Western University; Member of the Staff of the London General Hospital, London, Ont.

SO far as I am aware, myxedema is a very rare disease in this country. During the twenty-odd years that I have been in practice I have had but three cases come under my notice. The first was unrecognized during the life of the patient, but, looking back at the case, I am now quite convinced that it was one of myxedema; it occurred in a married woman, aged about 75 years. This woman was the mother of a large and healthy family, and for years before her death presented symptoms well marked, which I now recognize as belonging to the disease under consideration. She died in 1885, and as that was about the time that the attention of the medical profession was being directed to this affection, this may in a measure account for the fact that it was unrecognized.

The second case I saw, in consultation, in 1887. She was the mother of two children, and before the onset of the symptoms of myxedema had always been healthy. When I saw her she presented the symptoms of myxedema, and the affection was so diagnosed; but as it was before the days of the thyroid treatment, she was unrelieved by the treatment adopted, and died some time afterward. I do not know the immediate cause of death.

The third case is the one which I shall read very brief notes of at this time, and which I present before the meeting to-night:

MARY D., unmarried, aged 28 years, the eldest of a family of four, all of whom are healthy, except herself. I have been consulted by her occasionally during the last seven years. From her appearance I suspected that she was the subject of Bright's

* Read before the Medical Association of London, Can., May 11, 1896.

disease. However, repeated examination of the urine dispelled that idea. At first I gave her tonics of various kinds, which produced no improvement in her condition. Prior to June, 1895, I had not seen the patient for about 18 months. When seen on the 29th of June I at once felt that she was the subject of myxedema, and looking back over the seven years that I had occasionally seen her I could see that she had gradually changed. From being slight, she had become stout in her body,



BEFORE THYROID TREATMENT

limbs, and face. There was also a marked change in her disposition. From being cheerful and taking a deep interest in her work, she became dull, irritable, and took no interest whatever in it. She complained of drowsiness and loss of memory. Her speech became slow and hesitating. Her skin was dry, and the hair had fallen out so much that she was almost bald. Urine contained neither albumin nor casts. Unfortunately, I neglected to ascertain the amount of urea excreted before and after



AFTER THYROID TREATMENT

treatment. Her menses had ceased in November, 1894, and did not return till the patient had been under treatment for two months, *i.e.*, in August, 1895.

Treatment.—On June 29, 1895, I prescribed 1 grn. of Armour's dried thyroid, three times daily, and Bland's pill with arsenic—this latter because of her anemia. On July 9 the patient reported that the medicine made her head ache. Her face and body were much diminished in size, skin was peeling, and she felt better in every way—it was especially noticeable that she was much more cheerful.

Treatment was continued. August 12: Improvement was most marked, swelling nearly all gone, disposition entirely changed, menses returned, skin moist, hair has ceased to fall out. Shortly after this the patient went to Toronto. She continued the thyroid treatment. I saw her at Christmas. She was then in better condition. I understand that she stopped taking thyroid some time ago, and that recently she has not been quite so well.

She returned to the city yesterday, and visited my office unexpectedly to-day. In response to my request she is in attendance here to-night. She is not altogether as well as when I last saw her in August. She now proposes resuming the thyroid treatment. By contrasting her sprightly appearance now with the photographs of her taken before treatment the evidence of improvement is unquestionable. Indeed, if the comparison can convey to you the mental as well as the physical contrast, I dare say you will agree with me that the result is little short of marvelous.

This case of itself satisfies me that the thyroid treatment in myxedema and other diseases of the thyroid gland is a subject worthy of investigation and study. I trust the presentation of this case, with these brief notes thereon, may excite discussion and interest in the subject among the members of this society.

London, Canada.

BACTERIOLOGICAL STAINING SET

Revised and Arranged by CHARLES O. MAISCH, M.D.

Formerly Demonstrator in Clinical Microscopy in the Laboratory of the New York Post-graduate Medical School and Hospital; Visiting Physician to the German Dispensary of the City of New York, Children's Department, etc.

MANY requests and inquiries from former students concerning where to procure apparatus, solutions, etc. for clinical microscopical work led to the creation of the cabinet the writer will endeavor briefly to describe.

The contents are as follows:

Eight wide-mouthed bottles, fitted with soft-rubber stoppers and pipettes for the usual staining solutions;

Six 1-oz. glass-stoppered reagent bottles, with blown labels, for stock solutions, such as saturated alcoholic solution of fuchsin, nitric acid C. P., etc.;

Four 4-oz. glass-stoppered reagent bottles, with blown labels, for materials used in larger quantities; *e.g.*, alcohol, nitric-acid solution 1:20, etc.;

Three covered glass boxes, for alcohol and acid baths, to decolorize cover-glass stains;

Spirit lamp;

Balsam bottle, with rod;

Sediment glass;

Graduate in metric system;

Glass funnel;

Platinum teasing-needle;

Beaker glass;

Four test-tubes;

Cover-glass holder (polished steel);

Ehrlich plate;

Evaporating-dish (porcelain);

Dark-colored glass dish for sputum;

Extra pipette;

Glass rod;

Filtering-paper;

Blotting-paper;

Upright and holder for funnel, evaporating-dish, or Ehrlich plate, made to fit on side of case.

The staining-solution bottles are furnished with printed neck-labels; the other bottles have labels

blown into them. All are so arranged in the cabinet as to be easily read and accessible. When the cabinet is in use the zinc tray at the bottom may be withdrawn so that any solution spilled is thus caught.

The solutions and chemicals intended for the case are as follows; and while it may be superfluous reading for some colleagues, nevertheless the formulas will be given:

Sol. Caustic Potass. (U. S. P.). Nitric Acid (C. P.).
Hydrochloric Acid (C. P.). Xylol.
Aniline Oil. Canada Balsam.
Alcohol.

ZIEHL NELSON SOLUTION

Fuchsin 1 part
Alcohol 10 parts
Carbolic Acid, Crystals 5 "
Distilled Water 100 "

AQUEOUS SOL. METHYL-BLUE

Saturated Alcohol. Sol. Methyl-blue 12 to 15 drops
Distilled Water 30 c.c.
Sol. Caustic Potash 1 drop

GRAM'S IOD.-IODINE SOLUTION

Iodine 1 part
Arsenite of Iodide of Potass. 2 parts
Distilled Water 300 "

AQUEOUS SOL. VESUVIN

Vesuvium 1.5 parts
Distilled Water 98.5 "

AQUEOUS SOLUTION FUCHSIN

Sat. Alc. Sol. Fuchsin 1 part
Distilled Water 8 parts

ALCOHOLIC SOLUTION EOSINE

Eosine 1 part
Alcohol 1000 parts

SATURAT. ALC. SOL. FUCHSIN

Fuchsin 1 part
Alcohol 4 or 5 parts

SAT. ALC. SOL. METHYL-BLUE

Methyl blue 1 part
Alcohol 5 parts

SOLUTION GENTIAN VIOLET

Gentian Violet 1 part
Distilled Water 99 parts

ALCOHOL AND HYDROCHLORIC ACID SOL. FOR REMOVING ANILINE STAINS

Hydrochloric Acid (C.P.) 1.3 parts
Alcohol 100.0 "
Distilled Water 20.0 "

It will be seen that the stock solutions will enable one to replenish the stains as they are required, making it unnecessary to continually purchase new solutions.

The whole is contained in a neatly polished mahogany case, portable, not cumbersome, and may be used on a desk or table in the consulting room.

I believe this set will furnish all that is necessary for making clinical, bacteriological, and blood examinations such as are called for in ordinary practice; a laboratory, when available, certainly offers better facilities and is preferable; but for those to whom this is denied and to those physicians whom it has been my pleasure to instruct, I respectfully offer my cabinet, trusting it may be of some convenience.

In conclusion, thanks are due to my friend and colleague Dr. LOUIS HEITZMANN for valuable sugges-

tions in the selection of the staining solutions and formulas.

New York; 132 Broadway.

CONTRIBUTION TO THE STUDY OF INFECTIOUS VULVO-VAGINITIS IN CHILDREN, WITH REMARKS UPON PURULENT OPHTHALMIA, AND A REPORT OF SIXTY-FIVE CASES

By HERMAN B. SHEFFIELD, M.D.

Instructor in Surgery New York School of Clinical Medicine; Resident and Attending Physician of the Hebrew Sheltering Guardian Society Orphan Asylum

It may, perhaps, be considered immodest on the part of the writer to burden the esteemed reader with the subject in question at a time when the whole medical world is so much engrossed with the X-rays of Professor RÖNTGEN, and the miraculous cures and sudden deaths said to be produced by the antitoxins. But, considering the extremely important part which infectious vulvo-vaginitis may play in medico-legal questions, and the serious complications which are liable to accompany this disease, he hopes to be pardoned for undertaking its discussion. Moreover, when we perceive that most textbooks treat this subject very superficially, nay, some hardly mentioning it at all, and that there is still a great deal of dissension among the members of the profession at large as to the exact nature of infectious vulvo-vaginitis in children, it would appear superfluous to offer an apology.

Previous to the discovery of the gonococcus by NEISSER¹ in 1879, no real distinction had been made between catarrhal and specific vaginitis in children. Dr. R. POTT² was, perhaps, the first to call attention to the infectious character of this disease. He reports 44 cases of the kind, but was not prepared to pronounce the diplococci he found in the vaginal secretions identical with those of NEISSER. Dr. FRÄNKEL³ observed during three years' experience in the children's hospital at Hamburg, Germany, 67 cases of colpitis in children, and states that he detected in every case diplococci resembling those of NEISSER; he does not mention, however, whether the micro-organisms found by him decolorized by Gram's stain. He confirms the above by adding that in four cases of vaginitis which complicated typhoid, diphtheria, scarlatina, and rachitis, no gonococci were present. WISSEBERG⁴ believes that when this disease is observed in childhood before 5 years of age, it is either gonorrheal or syphilitic in nature. CSERI⁵ is of the opinion that colpitis in little girls may be due to mechanical irritation, uncleanness, exanthematous diseases, oxyuris vermicularis, as well as to infection by gonococci. Of the same conviction are HOFMOKL⁶, HENOCH⁷, BAGINSKY⁸, and others.

¹ "Ueber eine der Gonorrhoe eigenthümliche Micrococcenform," *Cent. f. med. Wissenschaften*, 1879, p. 497.

² *Jahrb. f. Kinderheilkunde*, 1883, p. 71.

³ *Virchow's Archiv.*, 1885, p. 251.

⁴ *Allgemein. med. Zeits.*, 1883, p. 831.

⁵ *Wien. med. Woch.*, 1885, p. 703.

⁶ *Archiv. f. Kinderheilk.*, 1888, p. 401.

⁷ *Lehrb. d. Kinderkrankh.*, 1892.

⁸ *Lehrb. d. Kinderkrankh.*, 1892.

Dr. ROTCH⁹ thinks that "infectious vulvo-vaginitis in children arises from a variety of irritations, one of which is the oxyuris vermicularis. In a very large number of cases, the gonococcus of NEISSER has been found in the purulent secretion. The disease may also arise in children who are very much debilitated, and is met with at times in scarlet fever and in measles. Again, it is not infrequent in anemic girls, in whom it occurs without any apparent cause." Dr. WHITE¹⁰ remarks that "the mere presence of gonococci does not justify the unreserved diagnosis of specific infection, although it may be said strongly to favor that view, and practically to establish it when the clinical symptoms coincide." VOGEL¹¹ believes that in young children vulvo-vaginitis is generally gonorrheal. Drs. DUSCH¹², SPAETH¹³, WEIDEMARK¹⁴, AUBERT¹⁵, FRUEHWALD¹⁶, SCHTEINSCHNEIDER¹⁷, EPSTEIN¹⁸, SMITH¹⁹, MARTIN²⁰, VAUGHAN and BROOKS²¹, CURRIER²², MORSE²³, CHADWICK²⁴, HEIMAN²⁵, FISCHER²⁶, of Altona, and others all agree that the diplococci found in the vaginal secretions correspond in all particulars with those of NEISSER. KEATING²⁷ speaks of a catarrhal and gonorrheal vulvo-vaginitis; the latter form, he thinks, has its analogue in the ophthalmo-blenorrhea neonatorum.

About four months ago the writer had the opportunity to observe an epidemic of infectious vulvo-vaginitis in children, consisting of 65 cases. They were known by his predecessor as "leucorrhea" cases. But, learning that such a large number of children had in a short time been attacked by this disease, it was natural to assume that the affection in question was very contagious and undoubtedly of specific nature, especially when it was observed that the vaginal discharge was in all cases of a greenish-yellow color, purulent, and more or less profuse.

Inquiring into the history of this epidemic, it was discovered that, about ten years before, several orphans of the above-mentioned asylum were afflicted with a similar "leucorrhea." At that time the epidemic was fully described by the then attending physician, Dr. WM. M. LESZYNSKY.²⁸ He stated in his report that 22 small girls and 13 large ones suffered from "leucorrhea," and among these, 18 girls had contracted purulent ophthalmia by auto-inoculation. Reasoning from the fact that four boys also were victims of the latter disease, they

being free from any urethral discharge, and auto-inoculation in their cases could consequently be excluded, he was evidently forced to doubt the specific nature of the epidemic, overlooking the fact, however, that the eyes of the boys could have been infected indirectly, as occurred in the case of L. G., later to be spoken of. He acknowledged, by the way, that he made no microscopical examination in any of the cases.

It was further learned that the epidemic of infectious vulvo-vaginitis here reported dated back to June, 1895, when H. D., aged eight years, was found suffering from a profuse vaginal discharge, accompanied by purulent ophthalmia, and that since then several cases of vaginitis and one of purulent ophthalmia, complicating vaginitis, were treated in the hospital before the writer took charge.

The question would naturally arise: Is the second epidemic of June last a continuation of that of 1886? The writer is inclined to deny this supposition, for otherwise we would be justified in asking: Why have the remaining 300 girls of the asylum been exempt from infection? Perhaps a better explanation of the origin of the second epidemic is as follows: A girl with specific vaginitis must have been admitted to the asylum, through carelessness, during the month of May last, and, owing to the fact that, until three months ago,—when a most excellent shower-bath was constructed—the girls were bathed, twenty to thirty at a time, in one large bathtub, the disease was conveyed to the other inmates through the water. This explanation is, of course, left *sub judice*.

OLIVER,²⁹ SUCCHARD,³⁰ and COMBY³¹ cite cases which have similarly acquired this disease, and several text-books—among others may be mentioned those of KEATING³² and JACOBI³³—speak of the same means of infection.

According to most authors, infectious vulvo-vaginitis is usually met with in children under 12 years of age, its frequency diminishing with the increase of years over the age mentioned. This assertion is open to criticism, judging from the fact that girls over 13 years of age, considering themselves young ladies, will, from feelings of modesty, conceal the presence of vaginitis and consequently not be seen by the physician. Again, there is a general impression among mothers that a vaginal discharge in their daughters is a more or less natural phenomenon before and during the regulation of the menses, and, therefore, they seek no means to assuage it.

Perusing the annexed table, it will be found that among the girls affected two were 4 years of age, three 5 years, four 6 years, twelve 7 years, seventeen 8 years, nine 9 years, seven 10 years, five 11 years, one 12 years, and five 14 years of age.

The writer has repeatedly examined the vaginal secretion of each and every case microscopically and

⁹ "Text-book of Pediatrics," 1896.

¹⁰ "Am. Text-book Dis. Child.," 1895.

¹¹ "Lehrb. d. Kinderkrankh.," 1887.

¹² "Deutsch. med. Woch.," 1888, p. 831.

¹³ "Munch. med. Woch.," 1889, p. 373.

¹⁴ "Hygiea, Stockholm," 1885, p. 217.

¹⁵ "Lyon med.," 1884.

¹⁶ "Wien. med. Woch.," 1883.

¹⁷ "Verhandl. Cong. d. Deutsch. Dermat. Ges.," Prague, 1890.

¹⁸ "Arch. f. Derm. and Syph.," 1891, No. 2, p. 3.

¹⁹ "Treat. Dis. Child.," 1890.

²⁰ "Jour. Cut. and Gen.-Urin. Dis.," 1892, X, p. 415.

²¹ "Ibid.," 1895.

²² "Omaha Clinic," 1889.

²³ "Arch. Ped.," 1834, p. 596.

²⁴ "Bost. Med. and Surg. Jour.," 1895, p. 347.

²⁵ "N. Y. Med. Rec.," 1895, p. 769.

²⁶ "Deutsch. med. Woch.," 1896.

²⁷ "Encyc. Ped.," 1890.

²⁸ "N. Y. Med. Jour.," 1886.

²⁹ "Bull. Acad. d. Med.," Paris, 1888.

³⁰ "Rev. mens. d. Mal d. l'Enf.," Paris, 1888.

³¹ "Rev. d. Mal. d. l'Enfance," 1892.

³² "Op. cit."

³³ "Therap. of Infancy and Childhood," 1896, p. 304.

found in all of them an abundance of pus cells penetrated and surrounded by diplococci, large and small epithelial, nucleated cells of squamous variety covered with diplococci, and in several specimens short and long bacilli were noticed. The methods employed in the demonstration of the micro-organisms were as follows. The external genitalia were cleansed, a sterilized platinum wire, in the form of a loop, was introduced into the vaginal canal, and the secretion thus obtained smeared upon a glass slide. After drying the specimen over the flame of an alcohol lamp, a small quantity of Löffler's methylene-blue solution was dropped upon it by means of a pipette; the slide was then washed with plain water and, according to GUENTHER,³⁴ with a weak solution of acetic acid (1:200) and dried with blotting paper and over the alcohol flame. After mounting the specimen with a drop of canada balsam, it was examined with Leitz's $\frac{1}{13}$ -oil immersion, ocular IV.

The diplococcus observed was morphologically identical with that of NEISSER, corresponding in all particulars with the minute description of FINGER cited by VAUGHAN and BROOKS³⁵: "The gonococcus is a diplococcus. Each of the halves has an outer convex and an inner straight contour; both lie close to one another along the straight contour, so that only a thin slit remains between them. Each half of the diplococcus thus resembles a coffee bean. The gonococcus presents these characteristics in common with all diplococci. A further characteristic is furnished by the grouping. It is never grouped in chains, but is always found in small groups and clumps, and the number of single individuals in each group is not alone paired, but is usually divisible by four. The groups are situated partly between the cells and partly (and this is characteristic of the gonococcus) in the pus and epithelial cells. Thus we find cells in which a single group or a few groups of gonococci are situated in the protoplasm, usually near the nucleus."

The diplococci found by the writer decolorized by Gram's method, which is considered the crucial test for the presence of gonococci, while the short and long bacilli remained visible on the specimen. To confirm the diagnosis, four cultures on serum-agar were made, and diplococci of the same morphological character as those above described were observed in each specimen taken from the tube 48 hours after inoculation. On February 3 sixteen cultures on serum-agar and over 60 smears on cover-glasses were made by the Board of Health of this city, and the report received as to the result of its examinations read as follows:

"I found gonococci in all the specimens I took, also in the eye secretions (of purulent ophthalmia) I have examined. There is no doubt that it was an epidemic of gonorrheal vaginitis.

(Signed) ALEX. LAMBERT, M.D."

Not desirous of entering into a detailed descrip-

tion of each case separately, the writer refers the reader to the annexed table. Attention is directed to the fact that only 13 cases presented severe symptoms, such as ardor urinæ, hyperesthesia of the vaginal mucous membrane, more or less bleeding on manipulation, etc. The remaining 52 cases experienced hardly any discomfort at all. In none of the cases, except the complicated ones, was it possible to detect a rise of temperature. No opportunity was offered to make inoculation experiments, but the following incidents have given the writer an idea of the good results he would have obtained had time and circumstances permitted their scientific completion.

On January 18, L. G., a boy aged 10 years, who was in the hospital under treatment for chronic conjunctivitis, was suddenly attacked by pain and excessive lachrymation of the left eye, and after about 12 hours intense swelling of the conjunctiva set in, while a large quantity of thick pus filled the entire eye, running down along the cheek. Examining the purulent discharge, diplococci of Neisser were discovered which decolorized by Gram's stain. On inquiry it was learned that the boy had accidentally made use of a towel belonging to L. B., who was at the time suffering from purulent ophthalmia complicating vaginitis.

J. Ch., a boy, aged 6 years, was sent up to the hospital complaining of painful micturition. He was found suffering from a severe balanitis, slight eruption around the meatus urinarius and moderate purulent discharge from the urethra, which showed an abundance of gonococci. He presented some other symptoms of gonorrhea, such as chordee, etc.; recovered in about four weeks without further trouble. Most probably he contracted the disease through the common use of chamber.

Among the many complications of infectious vulvo-vaginitis enumerated by different authors, both in this country and abroad, purulent ophthalmia forms, by far, the highest percentage. CSERI³⁶ cites 7 cases of purulent ophthalmia out of his 26 cases of vaginitis. LESZYNSKY³⁷ reports 18 cases out of 35. WEIDEMARK³⁸ observed 19 cases of purulent ophthalmia due to infection by the vaginal secretions. MORAX³⁹ speaks of three cases acquired in the same manner. Of the writer's own cases four children were victims of this dreadful complication, in the purulent discharge of which manifold groups of diplococci, which decolorized by Gram's stain, could be demonstrated.

Peritonitis is a complication of infectious vulvo-vaginitis, which, the writer believes, is met with next in frequency to purulent ophthalmia. Several textbooks make this complication prominent, among others may be mentioned that of JACOBI⁴⁰. This authority thinks that infectious vulvo-vaginitis "gives rise to glandular swelling, endo-, and para-

³⁶ *Loc. cit.*

³⁷ *Loc. cit.*

³⁸ *Loc. cit.*

³⁹ *Le Progrès méd.*, 1892, XVI, p. 303.

⁴⁰ *Loc. cit.*

³⁴ "Einführung in d. Stud. d. Bakt.", 1896."

³⁵ *Loc. cit.*

TABLE OF THE AUTHOR'S CASES OF INFECTIOUS VULVO-VAGINITIS

NAME	AGE	ADMISSION	GENITALIA	INGUINAL GLANDS	VAGINAL SECRETION UNDER THE MICROSCOPE	GENERAL SYMPTOMS	COMPLICATIONS	DISCHARGED	REMARKS*
H. B.	11	1895	Very infl.	Both sides painful	Abundance of gonococci, pus, and epithelial cells	Urethra implica'd	None	1896 Mar. 20	
G. M.	5	Dec. 18	Slightly infl.	Both sides sensitive	"	"	"	Feb. 16	Well-nourished child
S. J.	11	"	"	Right side sensitive	"	"	"	Mar. 14	Well-nourished child
L. E.	6	"	"	Normal	"	"	"	Feb. 18	Very delicate child
F. W.	14	" 19	Very infl.	Both sides inflamed	"	Abdominal pain	"	Mar. 8	Scrofulous; masturbates
L. C.	13	"	"	Both sides sensitive	Abundance of gonococci, pus, epithelial cells, and short and long bacilli	Urethra implica'd	Local peritonitis	" 25	Very strong child
R. M.	11	"	"	"	Abundance of gonococci, pus, and epithelial cells	"	Endometritis	" 10	Masturbates
R. M.	6	"	"	"	"	"	Proctitis	Feb. 16	Relapse after four days, cured March 25. Very well-nourished child
M. G.	9	"	Normal	Left side inflamed	"	None	None	Mar. 2	
S. A.	7	"	"	Normal	"	"	"	Feb. 1	Very strong child
E. C.	8	"	"	"	Abundance of gonococci, pus, epithelial cells, and long and short bacilli	"	"	" 20	
E. C.	9	"	"	"	Abundance of gonococci, pus, and epithelial cells	"	"	"	
B. G.	9	1896 Jan. 4	Very infl.	Slightly sensitive	"	"	Local peritonitis	Mar. 9	Well-nourished child
J. S.	8	"	"	"	"	"	None	" 14	Well-nourished child
D. L.	12	"	"	"	"	"	Local peritonitis	"	Well-nourished child, masturbates
R. W.	9	"	"	Both sides painful	"	Urethra implica'd	Proctitis	" 26	Well-nourished child, masturbates
F. G.	4	"	"	Slightly sensitive	"	Abdominal pain	Purulent ophthalm.	" 20	
J. D.	9	" 16	Normal	"	"	None	None	Feb. 15	Relapse after two days, cured March 20
B. M.	14	"	"	"	"	"	Synovitis of ankle	Mar. 5	Very strong child
R. R.	7	"	"	Normal	"	"	None	Feb. 26	
J. R.	5	"	"	"	"	"	"	" 16	Very strong child
A. A.	9	"	"	"	Abundance of gonococci, pus, epithelial cells, and long bacilli	"	"	Mar. 12	
P. L.	7	"	"	Slightly inflamed	Abundance of gonococci, pus, and epithelial cells	"	Synovitis of ankle	" 14	Suffered from scorbutus, April 10
L. B.	10	"	Very infl.	Left side painful	"	"	Purulent ophthalm.	" 10	Very strong child
A. S.	8	"	Eczema	Normal	"	"	None	Feb. 16	Chron. conjunct. before attack
J. E.	7	" 20	Normal	"	Abundance of gonococci, pus, epithelial cells, and short and long bacilli	"	"	" 16	Scrofulous
J. Z.	7	"	"	"	Abundance of gonococci, pus, and epithelial cells	"	"	" 18	
R. R.	6	"	Very infl.	Both sides painful	"	Urethra implica'd	"	Apr. 3	Very delicate child
D. G.	7	"	"	"	"	"	"	Mar. 28	
R. S.	7	"	"	"	"	"	"	Apr. 3	Very strong child
L. S.	14	"	"	"	"	"	"	Apr. 3	Very strong child
M. G.	8	"	Normal	Normal	"	None	"	Feb. 26	
C. C.	10	"	"	"	"	"	"	"	
E. B.	5	" 22	"	"	"	"	Purulent ophthalm.	"	Ophthalmia aborted during initial stage
P. B.	14	"	"	"	"	"	None	"	
R. L.	14	"	"	"	"	"	"	"	
A. N.	8	"	"	"	"	"	"	"	
R. F.	10	"	"	"	"	"	"	"	
J. R.	13	"	Very infl.	"	"	Abdominal pain	"	Feb. 17	Relapse after five days, cured April 4
R. G.	7	" 23	"	Left side painful	"	"	Local peritonitis	Apr. 14	
B. M.	8	"	"	Both sides sensitive	"	Urethra implica'd	None	Mar. 25	Very strong child
R. B.	4	"	"	Left side painful	"	None	"	" 5	
M. O.	9	"	Eczema	Normal	"	"	"	Feb. 18	
A. R.	8	"	"	"	"	"	"	Mar. 14	Relapse after three days, cured April 3
I. S.	7	"	"	"	"	"	Purulent ophthalm.	" 10	Ophthalmia aborted during initial stage
H. P.	8	"	Normal	"	"	"	None	Feb. 20	
L. S.	8	"	"	"	"	"	"	" 18	
M. N.	8	"	"	"	Abundance of gonococci, pus, epithelial cells, and short and long bacilli	"	"	"	
H. D.	8	"	"	"	"	"	"	"	
A. L.	7	"	"	"	Abundance of gonococci, pus, and epithelial cells	"	"	Mar. 5	Very delicate child
B. S.	10	"	"	"	"	"	"	" 17	
I. S.	6	"	"	"	"	"	"	" 6	Very strong child
L. S.	6	"	"	"	"	"	"	Feb. 18	
H. S.	9	"	"	"	"	"	"	"	Very delicate child
A. L.	7	"	"	"	"	"	"	Apr. 3	
R. B.	7	"	"	"	"	"	"	Mar. 14	Relapse after three days, cured April 5
E. L.	10	"	"	"	Abundance of gonococci, pus, epithelial cells, and short and long bacilli	"	"	Feb. 20	Relapse after two days, cured March 2
E. O.	8	"	Very infl.	Both painful	Abundance of gonoc., pus, etc.	"	"	Apr. 4	
B. B.	11	"	Normal	Normal	"	"	Pur. ophth.	Mar. 26	
D. L.	11	" 31	"	"	"	"	None	" 20	Very strong child
T. S.	11	"	"	"	"	"	"	" 4	
I. B.	8	"	"	"	"	"	Purulent ophthalm.	Apr. 20	
B. L.	8	"	Very infl.	Both sides sensitive	"	Urethra implica'd	None	" 10	
R. F.	9	"	"	"	"	"	"	Mar. 24	
B. K.	7	"	"	"	"	"	"	Feb. 24	Relapse after 4 d., cured Apr. 28. Strong child

*In all of the cases the vaginal secretion was very profuse, purulent, and of a greenish-yellow color.

metritis and peritonitis." LOVEN⁴¹, HATFIELD⁴², and HUBER⁴³ report such cases. MARX⁴⁴ observed salpingo-ovaritis as a complication of infectious vulvo-vaginitis. The writer had under observation four cases of local peritonitis, one of endometritis, two of proctitis, and two of synovitis of the ankle joint accompanying infectious vulvo-vaginitis. KOPLIK⁴⁵, VAUGHAN, and BROOKS⁴⁶ cite cases of articular rheumatism complicating infectious vulvo-vaginitis.

The writer did not find, as did Dr. POTT⁴⁷, any malformations or strictures of the vagina, psychoses, anemia, etc., following vaginitis, and this leads him to believe that these supposed sequelæ existed before the attack and were probably overlooked.

Judging from the writer's experience he does not hesitate to pronounce the prognosis of infectious vulvo-vaginitis as good, if free from complications. The course, however, is tenacious, say from four weeks to four months; at any rate much more obstinate than in married women, probably due to the fact that the intact hymen in children interferes with the outflow of the vaginal discharge, so much so that we are often enabled, with the finger in the rectum, to dislodge a large accumulation of pus from behind the hymen.

Those practitioners who were so fortunate as to effect cures of vaginitis in about twelve days⁴⁸, have either had to deal with simple catarrhal vaginitis or else failed to see their young patients again after the relapses set in.

The prognosis of infectious vulvo-vaginitis in itself being good, our main object in the treatment of these cases should be directed to combat the series of complications, and this, with patience and proper measures, can very easily be accomplished. All cases of infectious vulvo-vaginitis, whether in private or hospital practice, have to be strictly isolated, and the common use of privies, baths, beds, towels, etc., forbidden. Through such precautions the further spread of the disease will soon be checked.

Purulent ophthalmia as a complication of infectious vulvo-vaginitis is most frequently contracted either by conveying the purulent discharge from the vagina to the eyes, by means of the fingers, or the child, in rolling down from the pillow, may get into her eyes some of the pus particles which are usually found adhering to the bedclothes. To prevent these means of infection, the writer has devised a bandage, so constructed that the child could bring her forearms upward, as in taking her meals, but not downward below the fifth rib. Be-

fore going to bed the eyes were covered with a thin layer of absorbent cotton and a wide but short bandage. The night nurse was to observe that the bandages were not displaced. Since the adoption of this plan of prophylaxis no more cases of purulent ophthalmia occurred. The writer's predecessor had, previous to this, given orders to wash the eyes of each child affected with vaginitis two or three times daily with a saturated solution of boric acid, and, notwithstanding that his orders were carried out with the most scrupulous care, they proved of no value. Still more, two cases, cited above, who were treated for chronic conjunctivitis with instillations of boric acid (3 per cent.) every three hours and an application of silver nitrate (grs. iij. to oz. j water) once a day, have, during this time, contracted purulent ophthalmia, proving conclusively that boric acid as well as weak solutions of silver nitrate are by no means reliable preventives of purulent ophthalmia. The writer believes that a strong solution of nitrate of silver, say grs. x to oz. j of water, is an excellent abortive, if used at the early stage of lachrymation. Two cases (see table) were aborted by such an application.

From the knowledge gained from the cases of vaginitis under the writer's care, he feels certain that in most instances peritonitis, as well as metritis, are the direct results of infection by the vaginal secretion being forced into the uterus, fallopian tubes, etc., during douching. This can be avoided: First, by raising the douche-bag not higher than two feet above the level of the child's body; second, by inserting a small, soft rubber catheter into the vaginal canal no further than one inch. For the prevention of synovitis, or rheumatism, the administration of a mild alkaline diuretic, like citrate of potash, is of service.

As to the actual treatment of infectious vulvo-vaginitis, the reader is referred to the several textbooks upon the subject. It may only be added that in the administration of hot baths, which are very beneficial in the acute stage of the disease, care must be taken not to immerse the child's head in the water, no doubt contaminated by the purulent discharge. The writer found it of advantage to place the children in Sims's position when douching, as in this way the rugæ become well distended, and consequently the medicated water reaches all parts of the vagina better than in dorsal position. To avoid involvement of the cornea in purulent ophthalmia, extreme care must be taken not to apply the slightest pressure against the eyeball. By filling the eye with vaseline well under the lids during the intervals of cleansing, the friction of the hypertrophied conjunctiva against the cornea is greatly lessened.

The author's conclusions in reference to infectious vulvo-vaginitis in children may be summarized as follows:

1. Infectious vulvo-vaginitis in children is of gonorrheal nature; the diplococcus present in the purulent discharge is invariably identical with that of NEISSER, decolorizing by Gram's method.

⁴¹ *Hygieia*, 1886, p. 607.

⁴² *Archiv. Ped.*, 1886, p. 641.

⁴³ *Ibid.*, 1889, p. 837.

⁴⁴ *Rev. d. Gynæc.*, 1895.

⁴⁵ *Jour. Cut. and Gen. Urin.-Dis.*, 1893.

⁴⁶ *Loc. cit.*

⁴⁷ *Loc. cit.*

⁴⁸ AGRAMONTE. *N. Y. Med. Rec.*, January, 1896.

†The writer, after perusing the literature on this subject, can find no reference to proctitis as a complication of infectious vulvo-vaginitis; therefore, the two cases here reported are believed to be the only ones on record.

§ An observation which appears to the writer more than a coincidence, was the occurrence of purulent ophthalmia in the right eye, only of eight right-handed girls. Was the infectious material conveyed to the right eye by the right hand?

2. The infection can be conveyed through common privies, baths, beds, clothing, etc.

3. The symptoms accompanying the disease are far less severe than those described in most textbooks.

4. Most of the complications are preventable.

5. The value of boric acid or mild silver nitrate solutions as prophylactics of purulent ophthalmia is very doubtful.

6. Silver nitrate in strong solution is a reliable abortive of purulent ophthalmia, if used in the very earliest stage.

7. The mere presence of gonorrheal discharge in a small girl, without injury to the genitalia, does not prove that rape has been attempted.

8. Physicians in charge of asylums, or similar institutions, should be on their guard not to admit girls with vaginal discharge, unless they can convince themselves that this is not of gonorrheal origin.

9. The subject in question deserves a more careful study by the gynecologist, pediatricist, as well as by the general practitioner and medical jurist; and by their united observation we should in the near future be enabled to dispel any and all doubt as to the real nature of infectious vulvo-vaginitis in children.

New York; 150th street and Eleventh avenue.

THERAPEUTIC ITEMS

Potassium Permanganate in Pulmonary Tuberculosis.—H. B. GARNER and J. B. LEESON (*Med. Record*, 1896, XLIX, p. 263)

The authors have employed potassium permanganate with most gratifying results in several cases of pulmonary tuberculosis.

The first case mentioned is that of a phthisical woman, who was suffering with troublesome cough, free expectoration, sputum loaded with tubercle bacilli, constant temperature ranging from 100° to 103° F., great weakness, etc. She was first put on the cod-liver oil and creosote treatment, but no improvement could be observed. Then she was given 1-grn. doses of potassium permanganate before breakfast, a tablespoonful of wine of cod-liver oil one hour after meals, and 10 grn. of salicylic acid before retiring. For the first two days the drug caused nausea and vomiting, but after that it was readily tolerated, and within eight days marked improvement was observed. The patient made a perfect recovery, it is reported.

The second case is that of a phthisical man. Examination revealed a cavity in the left lung. He was so weak that he got about with great difficulty. He was put on the potassium-permanganate treatment, and within four days began to improve. Five weeks later he was able to go to work and felt stronger than he had for months.

A young man, with dullness at the right apex, respirations shallow, temperature 102° F., pulse 100, much debilitated, and having had night-sweats for a month, showed marked improvement within five days after being put on the potassium-permanganate treatment, and at the end of six weeks had made a perfect recovery.

A fourth case, similar to the latter, showed improvement at the end of four days after beginning the treatment. Less than two weeks later the patient's appetite was good, his temperature normal, and he was gaining rapidly in flesh. He now appears perfectly recovered.

The authors then mention two other cases in which potassium permanganate was used with good results by fellow-physicians.

One was a case of phthisis in a woman aged 56. She had been confined to bed, more or less, for over one year. Various remedies were used without success, until potassium permanganate and salicylic acid were resorted to.

Two grn. of permanganate were given before breakfast, cod-liver oil after meals, and 10 grn. of salicylic acid before retiring. In three days she felt better, cough was less troublesome, and appetite was better; in two weeks she had no fever, no night-sweats, and expectoration had ceased; at the expiration of six weeks she was stronger than she had been for five years.

The other case was diagnosed as tubercular peritonitis complicated with intestinal tuberculosis. The potassium-permanganate treatment gave immediate results. The discharges from the bowels commenced to lessen, and after the first week there was absence of fever, increase in flesh, and marked improvement in appetite. The patient continued to gain, and has now fully recovered.

The authors have several other cases on the potassium-permanganate and salicylic-acid treatment, all of which are doing well, it is stated.

New Treatment of Burns.—POGGI and VERGELY (*Med. Week*, 1896, IV, p. 96)

Dr. A. POGGI describes a treatment from which he has obtained excellent results in cases of burns of any degree. It consists in the use of potassium nitrate in the form of baths, compresses steeped in a saturated solution of this salt, or lotions.

Potassium nitrate acts in burns as a refrigerant, for, on dissolving in water, it determines a marked lowering of the temperature of the liquid, amounting to as much as 3.5° C. (6.3° F.). If a burn on the hand or foot is plunged into a basin of water to which a few teaspoonfuls of potassium nitrate have been added, the pain experienced by the patient rapidly ceases. After a while, the water is heated up and the pain reappears, but it quickly subsides on the addition of another supply of potassium nitrate. This bath, when continued for two or three hours, frequently definitively dispels the pain, and, it is said, may even prevent the production of phlyctenæ.

The application of compresses steeped in a saturated solution of potassium nitrate exerts the same refrigerant and antiphlogistic action, the pain being alleviated thereby, and cicatrization of the wound taking place without difficulty.

Professor VERGELY, of Bordeaux, has obtained very favorable results in the treatment of burns of the first and second degrees, by covering the affected parts with a thick layer of a paste prepared by mixing calcined magnesia with a certain quantity of water, leaving it dry on the skin. In proportion as dried fragments become detached, they are replaced by fresh paste. The pain ceases immediately after the application of the moist paste, it is stated; and under the protective layer of magnesia the wounds heal without leaving any trace of the cutaneous pigmentation which is so frequently observed after burns exposed to the air.

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THE CHARITY HOSPITALS OF NEW YORK, THE MAYOR, AND THE CHARITY COMMISSIONERS.—It is reported that the representatives of the teaching bodies who last Fall grabbed the hospitals under the control of the Department of Charities, to the exclusion of 3000 medical men from hospital privileges, have sent a long petition to the Mayor asking him to influence the Commissioners not to disturb the existing order of things. This petition is signed, so it is stated, by bankers and merchants and bishops and archbishops. In view of the equity which is at stake, it is somewhat surprising to find the signatures of dignitaries in the church affixed. This is a proof, possibly, of the ease with which the clergy can be fooled into signing about anything, from patent-medicine circulars to documents setting forth facts which will not hold water, and which have received the reprobation of all fair-minded men, including representatives of the very schools the faculties of which were willing, under the flimsy pretence of the necessity of increasing their clinical facilities, to treat professional colleagues after an unethical fashion

Fortunately, the question is not going to be settled by petition to the Mayor. So long as the Com-

missioners of Public Charities do their duty, the Mayor is hardly likely to endeavor to coerce them. If, after the investigation which is now going on, the Commissioners are satisfied that a wrong was done they will, without fear or favor, undo the unholy deal, displace the teaching bodies from the control of the charity hospitals, and give to the profession that which is its just due—facilities for practicing among the paupers, and thereby for bettering itself in knowledge medical and surgical.

The BULLETIN is slowly accumulating the evidence which has been offered to the Commissioners, and will publish the facts shortly for the information of the profession, not alone of the city of New York, but of the country at large. That which has occurred in this city may at any time occur in any other, and it behooves medical men everywhere to keep watch lest they be deprived of privileges in the public hospitals. The flimsy plea in self-defense entered by the ring-leaders in the late deal has been thoroughly riddled, and the wonder is that men could endeavor to justify an iniquity by such puerile argument. The outcome of this investigation is awaited with interest, and the BULLETIN, standing for the profession, would call on the Board of Commissioners for early decision; when, if the profession secures its rights, we do not question but that the hospitals will be well administered, and if the profession is defeated then it will be high time for combination after another fashion to oust and to punish usurpers and to teach them, and those who in after-years would become imitators, that where a principle is at stake, might does not eventually rule, but Justice is supreme in the end.

DIPHTHERIA ANTITOXIN.—A few months since, the firm establishment of the antitoxin treatment for diphtheria appeared almost assured. But now the pendulum of opinion is swinging in the opposite direction. Those favoring and those opposing the use of the antitoxin treatment are as far apart to-day, if not more so, than they were in the beginning.

This brings us back, practically, to our original position in relation to this important question, to wit, that until all sides will exclude the mild cases, which in reality may not be cases of diphtheria at all, from the mortality statistics, and will include all the severe and moribund cases in the compilation of statistics, no certain and reliable data of the value of the antitoxin treatment for diphtheria can be obtained. Isolated cases and isolated opinions are often misleading.

In this study of the utility of the antitoxin, due

allowance must also be made for the great advances that have been secured in the general and more rational treatment of this disease at the present time, as compared with the heroic treatment of the past, before crediting all the gain to the use of the antitoxin.

Until all these opposing factors have been impartially and scientifically adjusted so that they can be accepted by all those who are not absolutely prejudiced for or against the antitoxin, it has not been proved that the antitoxin treatment is the great and only specific for the cure of diphtheria.

If the dictum of some be accepted, that the antitoxin must not be employed until a bacteriological examination has declared the case unquestionably one of true diphtheria, then it is admitted by all that it is too late to use the antitoxin; consequently it is valueless as a specific. On the other hand, if the diphtheria antitoxin is to be employed in all cases of throat affection regardless of causation,—and under these circumstances the antitoxin is to be credited with preventing the development of diphtheria, or of curing the disease in instances that may be and yet may not be diphtheria at all,—it certainly does not, to say the least, add to the accuracy of our knowledge, but is apt to be absolutely misleading.

Some go a step further and assert that it has no immunizing power, and state that the employment of the diphtheria-antitoxin injections are absolutely dangerous, and therefore should not be used for its so-called immunizing power. Weight of evidence tends to show, however, that while the antitoxin of diphtheria may not have an immunizing or decidedly curative action, it is not a virulent toxic agent as compared with some of the antitoxins that have been produced. Therefore, it can, in all probability, be exhibited with comparative safety. Were it not for this fact its use would have long since been abandoned.

All things taken into consideration it still remains quite certain that, independent of all other methods of rational treatment for diphtheria, this particular antitoxin taken alone is of little or no avail in the treatment of the severe cases of diphtheria, but, together with other lines of rational treatment, and when it is used early, it may, like many other drugs, be an agent having a certain field of usefulness. In no sense can the diphtheria antitoxin, under the evidence thus far produced, be regarded as a great and sure specific for diphtheria, and the sooner the profession and the community at large come to realize these facts and accept its true position in therapy

the greater will be the credit to the scientific accuracy of the profession.

THE FUTURE OF THE PATHOLOGICAL SOCIETY.—A gradual falling off in the attendance at the meetings of the Pathological Society has been noticeable for the past few years. This cannot be due to a declining interest in pathology, for at no time have the workers in this and the allied branch, bacteriology, been so numerous in this city. While ten years ago pathological work was optional in the leading medical schools, to-day it is a required study, and every student before graduation must have acquired a fair working knowledge. Institutions whose material once went unexamined to the Potter's Field now have their own pathologists, and autopsies are made in all cases where permission can be secured. With this addition to the available material there should therefore be a constantly increasing interest and attendance at the meetings of the society. Yet such is not the case. True, there is not the novelty in the subject which there once was, before the ground had been so thoroughly plowed and harrowed, and when new and undescribed conditions were more frequently met with, and the changes in technique were more rapid. Yet to the younger members, who are being constantly enlisted to fill the roll, if not the assembly-hall, of the society, much will be new and interesting, which may have, in a double sense, an ancient flavor to the charter members.

But still another and more potent force has been at work of late to undermine the former prestige of the Pathological Society. We mean the growing custom of exhibiting gross specimens at the meetings of the private societies and those sections of the Academy of Medicine which are devoted to the interests of specialism. Ovaries, tubes, and uteri, rare specimens from the nose and throat, the nervous system, or the genito-urinary organs; in fact, nearly all the tangible results of operative procedures, find their keenest appreciation from those who are daily engaged in the clinical treatment of such conditions.

In these days of pressure and multiple engagements the laryngologist, for instance, cannot afford to give an evening to lungs, livers, and kidneys in the vague hope that something may be demonstrated which pertains to the branch in which he is exclusively interested. The gross appearance and the minute histology of the usual lesions are now fairly well described in the text-books. If the specialist has an unusual specimen to present or sees one pre-

sented, what he wishes to know is its clinical bearing, the frequency of its occurrence, its diagnosis from similar conditions, the indications for and the results of treatment. This is legitimate and just. Such special material should be exhibited where it will be instructive to the greatest numbers; that is, naturally, in the special sections. In the mean time the Pathological Society, as such, suffers temporarily, but this injury should not be lasting. There is enough available material from autopsies and a sufficient field in pure pathology to sustain an active organization. This past winter, while preserving all the former features, new attractions have been devised by the presiding officer in the way of stated topics for the evening which are designed to bring out in their discussion the scattered observations and material of the many. The response has thus far been gratifying. Now, at least the responsibility does not lie with the executive, but with the members, and upon them and upon the support which they accord to the various innovations depends the future growth or atrophy of the organization.

APPLAUSE AT MEDICAL SOCIETY MEETINGS.—The man who can at all times satisfy himself with the approval of his own conscience is either an egoist or a being more ethereal than human. Desire for recognition of merit or of effort is perfectly natural and proper. Natural, also, is the impulse to express pleasure at auditory or visual impressions. The infant, when delighted, dances, crows, rubs his hands against his chest, and strikes his palms together.

Shall the mature man retain the infantile method of expressing emotion by stamping, shouting, and clapping his hands? Undoubtedly there are times and places for such demonstrations. Stamping and shouting are fit methods of applause at a boat-race, at track or field sports; for muscle and animal strength hold sway at such times. In like manner, the actor, the vocalist, or the lecturer is received with clapping of hands; for the province of all these is, in the main, to entertain, and we generally pay them for it. Shall we give the same signs of approbation to members of our own family, fellows of our own society, when they present to us purely intellectual and scientific productions?

Is the hand-clapping commonly heard in meetings of medical men to be considered an expression of pleasure felt by the audience, or is it a method of recognizing the intellectual effort of those who read the essays? If the former, it is improper,

because undignified. However much we may enjoy the sermon of an eloquent divine, applause from the pews would cheapen the utterances from the pulpit. However much we may be delighted by the flights of oratory or the flowers of rhetoric of an impassioned attorney, we must refrain from audible demonstration, lest the judge very properly order the court officers to remove us from the room. The medical assemblage should be a collection of thoughtful, earnest students who, though meeting without restraint, yet retain their dignity, and ever preserve decorum.

Few of the speakers at sessions of medical societies seek applause. There are no footlights, there is no gallery for them. There is no room for the feeling experienced by COWPER, when he wrote: "O popular applause! What heart of man is proof against thy sweet seducing charms?" Yet we would not advocate the other extreme, and demand stoicism or indifference in the speaker. We believe with COLTON that "Applause is the spur of noble minds, the end and aim of weak ones." But we consider attention during the reading of his paper, approving nods upon its completion, and a murmur of "Good!" when he takes his seat as the best plaudits with which to greet the essayist at a meeting of a medical society.

THE INFLUENCE OF FEVER ON THE MENTAL STATE OF THE INSANE.—The effect on insanity of the various forms of fever, which occur in the course of certain of the acute diseases, is a subject which has engaged the mind of the alienist for some years. The subject is frequently alluded to in the more recent literature of insanity, and is one on which it would seem that exhaustive study and experiment might profitably be expended. CLOUSTON, on the strength of his observations on the effects of typhoid fever on insanity, prophesied some years ago that when we came to know more about some of the acute fevers we would be able to add to our therapeutics of insanity. BUCKNILL and TUKE also refer, in their work on "Psychological Medicine," to the cure during the course of fever of patients apparently hopelessly demented; and the subject is discussed at some length by Dr. C. M. CAMPBELL in Tuke's "Dictionary of Psychological Medicine," where the effect of typhoid fever is especially considered. BRUCE's first article on thyroid-feeding, which appeared in the *British Journal of Mental Science* for January, 1895, bears upon the same subject, and the author is inclined to ascribe the good effects of thyroid to the incidental occurrence of fever.

The most recent addition to the literature of this subject appears in the April (1896) number of the *British Journal of Mental Science*, by Dr. J. KEAY, of the District Asylum, Inverness.

The author gives an analysis of 44 cases of illness from scarlet and typhoid fever occurring at the District Asylum since it was opened, 30 years ago, and considers the cases with especial reference to the effect of the fever on the course of the mental disease. Six of the cases were scarlet fever, of which three recovered. Two were cases of chronic mania and melancholia of seven and five years' duration, respectively. Of the 38 cases of typhoid fever, there were 23 in which recovery from the fever took place, and of these six are reported as having mentally recovered very soon after the recovery from typhoid.

As might be expected, various theories are advanced by different authors to account for these facts. Thus, BUCKNILL and TUKE suggest that it is due to the "feverish excitement" of the brain, induced by the disease. Dr. C. M. CAMPBELL ascribes the favorable influence of fever to the improved circumstances and surroundings and extra attention given the patient; while MCINTOSH thinks it is a mere coincidence. Dr. CLOUSTON comes, we believe, nearer to modern thought on the subject when he ascribes the good derived from the fever to its so-called alterative effect on the system in general, and thus stimulating nutrition. Dr. KEAY does not express clearly his own views on this subject, but, judging from his remarks on thyroid-therapy in insanity, we should infer that he was inclined to ascribe the good effect of typhoid fever entirely to the increase of temperature. That this is really the case seems to us quite improbable, and we think, in the light of more recent work, that it is impossible to maintain that the good effect of thyroid-feeding is due to the fever that it induces.

In fact BRUCE himself has dissented from this view in a more recent publication covering a series of 60 cases in which thyroid-feeding was practiced (*British Journal of Mental Science*, October, 1895), and the theory is irrecoverably demolished when we take into consideration those cases of recovery following thyroid-feeding in which there is no appreciable rise of temperature; and this frequently occurs. Moreover, when fever occurs in the course of thyroid-feeding it rarely goes over 100° F., and very quickly subsides toward the normal point, in most instances reaching the normal range within 24 hours. To suppose that such a fever, *per se*, can influence the mental state is to

suppose that a remarkable effect is capable of being produced by a very insignificant cause.

With regard to the continued fevers we are obliged to face the same conclusion when we consider all the facts. The recoveries from insanity follow most frequently typhoid and scarlet fever. Now, it would seem far more plausible to suppose that the good effect of the fever on the course of the mental disease was due to the stimulation of the nutritive processes that occur at the end of the fever than to ascribe any portion of it to the fever; moreover, improvement occurs generally after the fever and not during it, showing quite conclusively that the fever is not an essential factor in its production. Furthermore, improvement following pneumonia and some other diseased states accompanied by high temperature has but rarely, if at all, been observed. We are therefore forced to the conclusion that the simple rise of temperature will not account for the improvement in the mental state of the insane, observed to follow scarlet and typhoid fevers, and the systematic administration of large quantities of thyroid-extract.

NOVEL-READING.—We have been made aware of late of the increase of novel-reading, not so much because of the romantic interest the novel contains but because of its general sedative action upon the reader. One afflicted ("blessed") with this practice informs us that very often he can remember nothing of what he has been reading, but he reads in order that he may get the full sedative effect of doing nothing mentally.

We are told that the favorite time of indulgence in this habit is just at the hour of retiring for the night's rest and like the sybarite of old or like the opium habitué addicted to his pipe, its votary turns to his novel and enjoys its soothing effects. When the power of absorption has become *nil* he has then reached the goal of its quieting effects and he drops into an undisturbed and oblivious sleep.

The psychological explanation of this custom is not so easy as one might, at first thought, suppose; it acts by drawing the mind from daily duties with their harassing and worrying details; it exercises a different portion of the brain; it calls into play new ideas and new emotions; it allows the every-day routine of thought to die out of consciousness or groups itself in the background, thus losing its sharpness, and furnishes a setting to the new pictures called forth by the novel. The blood flows more evenly through the arterioles, and the tired nerve centers are bathed in its refreshing current and

lulled to inaction by its soothing rhythm. Nevertheless, the practice, like all its sedative prototypes, has a use and an abuse.

The constant and habitual reader of the novel presents a sorry example of mental impotence and strongly suggests a cerebral neurasthenia which may be concomitant or sequent to the habit. As a habit, it gives the devotee no mental stimulus, but carries him smoothly along over the "glassy-like floor" or another's thought. The keen wit, the subtle portrayal of a character, or the intellectual grouping of natural circumstances produces no lasting satisfaction upon him, but he considers these essential factors only as interruptions and of a tedious nature, requiring sustained attention and coherence of thought to which he has long since become particularly averse. He lazily searches through books for an assonance of words and is unwilling, if not unable, to take a "firm mental grasp" upon the harmonies of form, circumstance, and the deeper currents of logical thought.

From this disgusting abuse of novel-reading we desire in turn to produce a truer and more pleasing illustration of its use. How often many of us feel the necessity of turning from dull care and harassing routine of medical practice toward something pleasing, healthful, and interesting. It is at these times and by means of the carefully selected novel that we may at once transport ourselves into a new environment, one that by no means demands mental inertia, stagnation, and stupefaction; but, on the other hand, it directs our sympathies and interests into new currents of healthful intellection and gives us true mental rest.

We are almost daily made aware of the truth of SEIDEL's remark in his discourse on old age, that "Our age is rich in those premature old men who, weakened by a rapidly consuming life, wander about like animated corpses and haste on toward the grave." The prime necessity of obtaining some mental recreation in this our rapidly moving age renders it imperative that we should select some form of amusement containing all the healthful rest it is possible for it to possess, and after careful survey of the fields of recreation we can hopefully recommend a moderate use of fiction-reading. Therefore, while we regard novel-reading, when abused, a practice which cannot be too thoroughly stigmatized by all healthful-minded people, yet we do consider its moderate and judicious use not only desirable and helpful, but also a practice to be earnestly recommended to those desirous of rest and freedom from mental fatigue.

GENERAL MEDICINE

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Myocarditis in Alcoholism.—AUFRECHT (*Therap. Monatsh.*; Ref. in *Brit. Med. Jour. Ept.*, 1895, No. 1826, p. 101)

This paper takes up symptoms and treatment of alcoholic myocarditis. "The history, together with shortness of breath, increased cardiac dullness, irregularity of pulse, and perhaps a soft systolic *bruit*, are the characteristic features of the condition; enlargement of the liver and albuminuria may aid the diagnosis. General edema and ascites may be present, and it is particularly to be noted that the prognosis is not necessarily made worse thereby; even in cases where repeated paracentesis abdominis is necessary, the prognosis is by no means so unfavorable as is often asserted. Absolute abstinence from alcoholic drinks is the first essential in treatment, and no evil results from the sudden abstinence even in the most inveterate drinkers; indeed, the best results have followed in severe cases from immediate abstinence. Residence at a spa may be advantageously combined with this; and in some cases rest in bed may be necessary for irregularity of the heart. The sovereign remedy in all cases of heart failure from alcoholism is digitalis. In some cases diuretin is valuable in reducing edema, and with this may be combined the use of warm baths. Complete recovery may be looked for where only the early heart symptoms are present, and, indeed, even where there is enlargement of heart and liver with albuminuria, if only of short standing; in cases where there is hypertrophy of the heart with interstitial hepatitis and chronic albuminuria, improvement may be considerable and the patient may live for years."

Foreign Bodies in the Air-passages.—ED. ARONSOHN (*Berl. klin. Wochenschr.*, 1895, XXXII, p 989)

In spite of the fact that over six hundred cases have been reported in which foreign bodies were found lodged in the air-passage, our knowledge as to the diagnosis and treatment of these conditions is still greatly in need of more positive data. In this article the author does not touch on the more common occurrences of foreign bodies in the nose and throat.

The first case cited by the author is one of a man 40 years old. A piece of bone had entered the left bronchus and had caused a severe catarrhal inflammation. The expectoration was copious, mucopurulent, and, at times, fetid. Several months after the accident the patient was sent to Ems, where, besides drinking the waters, he took inhalations of compressed air, exhaling into a rarefied space. During one of these exercises the piece of bone was coughed out.

The fact that the foreign body entered the left bronchus, rather than the right, as is usually the case, is worthy of note. The author explains this by saying that the chest was very well developed and that he found emphysema to be present, the lumen of the left bronchus thus being larger than normal.

The second case is one of a woman, 35 years of age, who complained, for three years, of a mucopurulent expectoration which was thrown out on slight coughing. At times the sputum was mixed with blood, and hemoptyses are said to have occurred. The continued use of creosote had no effect on the cough. The family physician, as well as several others, suspected a tubercular inflammation, yet the physical examination displayed nothing, and the sputum was free from bacilli. The writer regarded it as a case of tubercular inflammation in either the bronchial or tracheal mucous membrane. A course of treatment at Ems, together with inhalations of menthol, enabled the patient to cough up a hard body which the author regarded as a concretion of lime-salts. The probable seat of this foreign body the author believes to have been directly beneath the glottis, as SANDER has reported a number of instances where bodies lodged in this place caused few or no symptoms. And according to the experiments of ERICHSON this particular spot is not very sensitive, and KAPESSE states that this place is only slightly influenced by the stream of air during inspiration.

The author considers the course, diagnosis, and treatment of the case of more importance than the fact of finding a concretion of lime salts in the air-passages. He argues, when we find blood in the urine, we at once think of the possibility of stone in the urinary tract. Tubercular trouble would be a matter of secondary consideration. In the present case no one thought of the possibility of a foreign body being the cause of the bloody sputum; tuberculosis of the bronchial mucous membrane was the first thought in everyone's mind, and if the stone had not accidentally been brought out during the life of the patient, the case would have passed as one of tuberculosis, and would have been quoted to prove the ineffectiveness of creosote.

Two other cases are worthy of mention. A girl of 16, while tying up flowers had held a pin between her teeth. Suddenly the pin had disappeared. There was no cough, and deep respiration caused no marked pain. A piercing sensation was said to be felt a hand's breadth above the pit of the stomach. Neither the pharynx nor the larynx showed signs of the passage of a foreign body. Swallowing fluids caused pain whereas solid particles could be taken without discomfort. The author decided that the pin had not entered the body at all, and recommended the girl to take a good dinner. The pin was never heard of after that.

The last case is one of an elderly lady who believed that some fish-bones had "stuck in her throat," and were causing her great pain. The writer found, on the pharyngeal side of the epiglottis, wounds which may have been caused by fish-bones, but the latter could not be found. Still the patient insisted that they were there. For want of fish-bones a few stiff bristles were shown the patient as having been taken from her throat. She went away satisfied and did well.

In considering whether or not a physician is justified in using what may appear to some to be questionable therapeutic measures, the writer believes: "*Salus aegroti suprema lex tibi esto!*"

An Army Crematory.—A portable crematory adapted to the needs of an army in the field has been devised by a Polish engineer. It is drawn by horses, and is designed to burn the bodies of soldiers killed in action. A similar method has been adopted by the German Army.

SURGERY

OPHTHALMOLOGY, OTOTOLOGY, RHINOLOGY
LARYNGOLOGY, DERMATOLOGY, ORTHOPEDIC AND GENITO-URINARY SURGERY

Department Editor
SAMUEL LLOYD, M.D.

GENERAL

In charge of B. FARQUHAR CURTIS, M.D., WILLIAM B. COLEY, M.D., E. M. FOOTE, M.D.

Heredity of Appendicitis.—TALAMON (*Méd. mod.*, 1896, No. 9)

In two instances in TALAMON's practice appendicitis occurred in several members of the same family. He refers to similar instances reported by ROUTIER, GALAGUIER, and others, but does not attempt to explain wherein the hereditary predisposition to inflammation lies—whether in the length of the appendix, its breadth, or its structure, or in the disposition of Gerlach's valve. To his mind the frequency of appendicitis among Anglo-Saxons cannot be explained by peculiarities of their habits of living.

Radical Cure of Femoral Hernia by an Inguinal Incision.—TUFFIER (*Rev. de Chirurgie*, March, 1896, p. 240)

Three years ago TUFFIER operated upon a strangulated femoral hernia by the usual method of high ligation of the sac, after reduction of its contents. The operation was immediately successful, but the hernia recurred, and the operation now described is the result of his efforts to improve the technique in femoral hernia. Experiment and reason agree in showing that it is useless to expect a firm support from the suture of fibrous structures if there is much tension on the stitches. Therefore, the principles laid down by CHAMPIONNIÈRE and others, which have given such good results in inguinal hernia, cannot be applied to all cases of femoral hernia; for in certain of them the falciform process cannot be easily approximated to Gimbernat's ligament and the firm pectineal aponeurosis.

After acknowledging his indebtedness to ANNANDALE, RUGGI, and PARLEVECCIO for certain ideas which he has utilized, the author describes the technique of his operation as follows:

The operation consists essentially in making an incision in the groin, through which to reach and draw out the femoral sac. There are six steps:

1. Incision parallel to the inguinal canal, beginning at its orifice and extending upward and outward four fingers' breadth. Opening of the canal, or merely of its aponeurotic orifice in case the hernia is small. The spermatic cord (or round ligament) is lifted up to facilitate the incision of the posterior wall of the canal.

2. One comes now upon the superior orifice of the crural canal—lost in the subperitoneal fat; with the finger the neck of the femoral sac can be felt and dissected free.

3. The hernial sac is now drawn out through the inguinal wound. If the hernia is small, this is readily accomplished by the finger alone, which frees it from its attachment and draws it out. It is then seen that a femoral hernia is composed of three parts—the crural sac, its neck, and, above that, a large, inguino-crural infundibulum.

4. The peritoneum is opened; intestine, if present, reduced, and any omentum resected as high as pos-

sible. The sac is resected and sutured well above the ring.

5. The femoral canal is sutured on the level with its superior margin by the approximation of the femoral arch to the aponeurosis of the pectineus muscle.

6. The various planes of divided tissue are sutured without drainage.

The epigastric vessels offer no serious difficulty. They may be held out of the way, or be divided and tied if in the way. Sometimes the sac cannot be freed readily, on account of adhesions to the femoral fascia or irregularities in the sac. In that case the sac is exposed from its neck downward, and the dissection made.

The sac should be resected as high as possible, so as to include in the (catgut) suture the infundibulum referred to.

Sometimes the firmness of the femoral canal causes trouble. In two of the cases reported the canal was so firm that it could not readily be closed. As it was so far removed from the peritoneal suture in three cases, it was left undisturbed, and no recurrence of the hernia has manifested itself.

In cases of strangulated femoral hernia this operation offers especial advantages, in that the field of strangulation is entirely exposed, the constricting ring can be directly treated, and the good and bad intestine easily differentiated.

It may be urged against this method that it opens the inguinal canal, but the results of proper aseptic closure of the inguinal canal are so satisfactory that this objection is not so great as it might appear. In very large femoral herniæ, too, it might be difficult to withdraw the sac. However, though there may be cases for which it is not adapted, the author believes this operation for femoral hernia will become the method of choice. In those rare cases of combined inguinal and femoral herniæ it is absolutely indicated.

TUFFIER reports eight cases in which he has followed the rules as laid down above. All healed well and no bandage or truss was applied after the wound had united. In seven cases there was no recurrence in periods varying from 3 months to 14 months (average, 9 months). In the eighth case there was—16 months after operation—a slight fullness above Poupart's ligament. The femoral canal was perfectly solid.

GENITO-URINARY

In charge of GEORGE KNOWLES SWINBURNE, M.D.

Perineal Drainage of the Bladder in Cases of Rebellious Cystitis.—FÉLIX LEGNEN (*Ann. d. Mal. d. Org. gen.-urin.*, 1895, p. 1065)

L. calls attention to certain forms of cystitis, which, having proved rebellious to the ordinary treatment by bladder irrigation, instillations of nitrate of silver and sublimate as advised by GUYON, in which, further, suprapubic drainage having given only temporary relief, we may hope for good results from the perineal cut, dilatation of the deep urethra, curettage of the bladder-neck followed by long continued perineal drainage.

He details three cases in all of which suprapubic drainage had been performed with only temporary benefit, each case having quickly relapsed as soon as the suprapubic wound closed. One extremely interesting case had had a gonorrhea followed by cystitis, and had twice been operated on for calculus, once by lithotripsy, and once by the suprapubic route, at which time the bladder was also drained in

the hope of curing the cystitis. As a last resort perineal drainage was established, when it was found that the posterior urethra, immediately in front of the bladder neck, was widely dilated, and covered by smooth mucous membrane, so that it was highly probable that the long-continued treatment by instillations had been useless for the reason that the bladder had never been reached. This case has remained cured for a year following the operation. In one of the other two cases, tubercular trouble was suspected, but careful examination never established the presence of the bacillus; in the third case, a boy 13 years, bacilli were found.

All three cases suffered from great frequency of micturition and excruciating pain, purulent urine, and frequent small hemorrhages from the urethra, and were utterly incapacitated from work. The first case was cured by the operation, the other two so markedly relieved as to be able to take up their ordinary occupation, but the author believes that too short a time has elapsed to pronounce a cure.

The details of the operation are as follows: A tunneled sound is passed into the bladder, the first incision is made transversely midway between the bulb and the anus down to the urethra, and the posterior urethra opened. A stylet is passed along the groove of the sound into bladder, and the tunneled sound is removed; then the posterior urethra is dilated gradually by passing larger and larger instruments up to a diameter of 2 cm., so that the index finger may be easily passed to the bladder. The neck of the bladder is then curetted, washed out, and a large size Pezzer catheter inserted. This catheter is to be left *in situ* for six weeks, the bladder irrigated daily, and the catheter removed for cleansing every five to seven days. The perineal wound closes rapidly after removal of the catheter.

The author believes the greatest benefit in the operation comes from the length of time that the perineal tube is kept in, rather than from the curettage, which latter he believes to be of undoubted benefit.

DERMATOLOGY AND SYPHILIS

In charge of HENRY W. STELWAGON, M.D.

Assisted by EMANUEL J. STOUT, M.D., and CHARLES N. DAVIS, M.D.

Concerning a Case of a New Pernicious Skin Disease.—Dr. E. SPIEGLER (*Arch. f. Derm. u. Syph.*, XXXIII, p. 69)

A man aged 38 years; negative family history. Eighteen years ago he had syphilis, for which he was treated; no symptoms since. His present illness began 18 days ago, by the appearance of a red spot and nodule on the breast. As the disease progressed the rest of the body became covered with an efflorescence, which was partly erythematous and partly nodular. In the second week blebs formed, the contents of which were, in places, hemorrhagic; in others pale and serous. The patient was well nourished. The internal organs were normal. The entire trunk and extremities showed the presence of an exanthem. The lesions were confluent on the elbows, the outer side of the thighs, and in the bend of the knees. On the palmar surface many lesions were present, while the plantar surfaces were free. Single nodules were found on the scalp. The fresh lesions varied in size from a pinhead to that of a hazelnut. The nodules were red and hard, and became pale on pressure. Individual lesions were oval, and simulated herpes tonsurans maculosus. Some were slightly elevated in the center and covered with a scale. Old and new lesions existed near

each other, and as the lesions disappeared they were covered with crusts which, on removal, caused slight bleeding. In other areas there are flat, dark, dry scales, suggesting necrosis. The tongue was covered with a thick, white coating, and on the upper surface were countless oval spots bared of epithelium, and some round lesions covered with a pustular substance, while on the gum there were two spots covered with necrotic epithelium. The patient became much prostrated, grew gradually worse, and died 36 days after the onset of the disease. All remedies were used without avail, and, from the prostration and general character of the disease, KAPOSÍ gave a bad prognosis at the beginning. Examination of the contents of the blebs showed the presence of a micro-organism one-third of a micro-millimeter in length, which was stained by the ordinary aqueous aniline solutions, and not decolorized by Gram's method. The organism grew quickly in bouillon at 37° C. These micro-organisms were found invariably in the bleb contents in pure culture four days before death, but later they were replaced by the staphylococcus pyogenes aureus, the fluid taken on the last day showing the latter micro-organism only. The bleb contents, injected into mice, rabbits, and guinea pigs, gave negative results. The staphylococcus injection was a secondary one. The negative results obtained from the injections into the animals do not gainsay that the disease might have been fatal to man, even had there been no secondary infection. Nothing was found in the blood except a mild degree of leucocytosis. Chemically the urine showed only a trace of albumin, such as would exist in any case of pyrexia, but during the last few days some white, lustrous, needle-shaped, crystalline bodies were found. An injection of a derivative of the urine into the jugular vein of a rabbit was followed by great dyspnea, tonic convulsions, opisthotonos, and death, the substance acting much as muscarine does. A section of the skin in the region of a bleb showed the papillary vessels dilated and full of blood, with small, round, cell-infiltration in the neighboring layers, and in the meshwork of the cutis. Fresh extravasations of blood were found in the papillæ. The rete cells were separated from one another, so that the prickle cells were extremely distinct. The formation of the bleb was, as a rule, on the edge of the stratum corneum, but in places was found in the rete proper. The author concludes that the case is unique bacteriologically, toxicologically, and symptomatologically. The name suggested by KAPOSÍ was *erythema-papulo vesico-bullosum et necroticans*.

Syphilitic Reinfection.—SCHIRVEN (*Dermatol. Zeitschr.*, II, 1895; *Jour. des Mal. cut. et syph.*, Jan., 1896)

The author has observed two cases of complete syphilitic reinfection. He treated the first case in November, 1892 (chancre in 1882), which was completely cured. In the month of February, 1894, the patient again presented himself for treatment. On December 21 the patient had noticed a small vesicle on his prepuce, which soon healed under mercuric chloride and dermatol. Soon afterward induration and general malaise followed. The author found an indurated chancre, engorged ganglia, a generalized erythematous and erythematous-squamous syphiloderm and a slightly scaly eruption on the palms of both hands.

The second case had an indurated chancre near the meatus urinarius on September 24, 1892, and soon afterward secondary symptoms. He was

subjected to energetic antisyphilitic treatment. In the month of March, 1894, one month after a suspicious intercourse, a nodosity appeared on the prepuce, which, after being excised and examined microscopically, was recognized as an indurated chancre. Somewhat later secondary symptoms appeared. According to the author these two observations demonstrate the curability of syphilis.

Psoriasis.—BOUFFE, of Paris (*Bulletin méd.*, IX, p. 840)

The author distinguishes three varieties of psoriasis which differ in their prognosis and treatment: the arthritic psoriasis, which is easily cured; the lymphatic psoriasis, which is much more rebellious to treatment; and the psoriasis which is frequently found in syphilitics, although not of specific nature, for it is not modified by specific treatment.

A Case of Lupus Erythematosus (Erythème Centrifuge Symétrique) Treated with Injections of Sheep's Serum.—M. E. SEGRAIN (*Ann. de Derm. et de Syph.*, Jan., 1896)

In a case of lupus erythematosus of the so-called *erythème centrifuge symétrique* type, in a woman 32 years of age, the author employed injections of sheep's serum successfully. Other remedies had proved of no avail. He used two injections of 10 c.c. at an interval of five days. Three days after the first injection the spots began to grow pale, and ten days after the second injection they disappeared without leaving a trace.

Visceral Complications of Erythéma Exudativum Multiforme.—OSLER (*Amer. Jour. of the Med. Sci.*, Dec., 1895)

Of the various cases of erythema multiforme coming under the writer's observation he has met with eleven cases which he classes under this head, in which visceral manifestations were more or less pronounced. In all these eleven cases there were gastro-intestinal crises—colic, usually with vomiting and diarrhea; acute nephritis in five, in two of which there followed general anasarca and death; hematuria was present in three cases; hemorrhage occurred from the bowels in three cases, from the stomach in two cases, from the lungs in two cases, and from the nose in three; one had spongy and bleeding gums; two presented enlargement of the spleen; in one case there were recurring attacks of cough and bronchitis without fever, and in one case there was a heart murmur. Two of the cases had swelling about and pain in the joints. The skin lesions were polymorphic, ranging from simple purpura to extensive local edema, and from urticaria in all grades and forms to large infiltrating hemorrhages of the skin and subcutaneous tissues. In individual cases the cutaneous eruptions were often of the most varied character. In only one of the cases was the attack single; in others there were multiple outbreaks distributed over periods ranging from two months to eight years. The writer admitted that the majority of these cases would be ordinarily described under the heading of purpura or peliosis [with which view the editors and other dermatologists would coincide.—ED.], but the variable character of the eruption and its interchangeable nature in individual cases make a wider definition of exudative erythema the more acceptable. In two of the cases, in some of the recurrent attacks, cutaneous manifestations were absent, the symptoms being entirely visceral.

SOCIETY MEETINGS

NEW YORK ACADEMY OF MEDICINE

SECTION ON SURGERY

May 11, 1896

B. FARQUHAR CURTIS, M.D., Chairman

Fracture of Patella; Suture.—Dr. JOSEPH A. BLAKE presented a man, 24 years of age, who, four weeks ago, had fractured the patella by muscular effort. One week later, the fracture, which was transverse, was sutured with silver wire. The lateral patellar ligament had been torn away from the bone, and had wrapped itself around the fragment, so that, in all probability, if the case had not been operated upon, good union would not have been obtained.

Diabetic Gangrene; Amputation of the Thigh.—Dr. ARTHUR L. FISK presented a man, 66 years of age, whom he had first seen at Trinity Hospital in 1893 with varicose ulcers of the leg. Last November he had returned to the hospital, having been previously under the care of Dr. NELSON H. HENRY for gangrene of the sole of the foot. On January 7, 1896, 75 per cent. of sugar was found in his urine, but owing to the rapid extension of the gangrenous process it was deemed best to amputate. The amputation was done above the knee on the strength of the article written by Dr. POWERS. The femoral artery was atheromatous. On January 13, five days after operation, the percentage of sugar was only 2.5, and from this time on it steadily declined until on March 28 the sugar had permanently disappeared. The man made an excellent recovery, and was now in much better health than he had been for years. There was also albumin in the urine. According to the literature of the subject, this combination of albuminuria and glycosuria was especially fatal.

Dr. Fisk also presented a woman, 61 years of age, who had had a large percentage of sugar in the urine at the time he had removed one breast for an ulcerating carcinoma. She made a good recovery, and there had been absolutely no return of the carcinoma, but an examination of the urine to-day showed 2 per cent. of sugar.

Dr. H. LILIENTHAL said that he had amputated the breast of a young woman having sugar in her urine, but the glycosuria had persisted after the operation. He had seen several cases of amputation of the thigh for diabetic gangrene, in which there had been a prompt and complete disappearance of the sugar from the urine.

Separation of the Epiphysis of the Head of the Humerus.—Dr. J. B. WALKER presented a little child, whom he had first seen about one month ago. There was such enormous swelling at that time about the shoulder that it was very difficult to make an exact diagnosis. There was no bony crepitus. The dressings had been changed every two days in order to be sure that the fragments were kept in good position.

Acute Arthritis (?) in the Hip.—Dr. W. R. TOWNSEND presented a baby, a month old, born after a normal and easy labor. The child's temperature when first seen, a week ago, had been 100° F., and since then it had not gone above that point. No distinct fluctuation had been detected, and deep exploratory punctures with a large needle had yielded negative results. It was possible, of

course, that there was a new growth present. The case was presented for diagnosis.

Dr. LILIENTHAL, regarding Dr. TOWNSEND's case, said that he was inclined to believe that the condition was due to a new growth. He recalled a case of congenital enlargement of one lower extremity, occurring in a young girl who had been taken to many surgeons. Dr. GERSTER had finally operated on this case, and had found that the enlargement was chiefly due to an angiomatic condition, which ultimately required amputation of the limb.

Dr. J. F. ERDMANN, said that he had met with a number of cases of separation of the epiphysis of the humerus in each of which could be felt a sharp border of bone, and below this the bicipital groove. This point was of some importance in diagnosis.

Intestinal Fistula; Suture.—Dr. FOOTE presented a boy upon whom he had operated for the closure of an intestinal fistula. Two years ago two unsuccessful attempts had been made, the history said, to close the fistula by suture. The fistula was in the right lumbar region, and at times it discharged formed fecal matter. The opening was found to be in the side of the ascending colon. The fistula was so far from the fold of peritoneum that it was found impossible to reach it by an abdominal incision. The operation was done 18 days ago, and, with the exception of two superficial ulcers, the wound had entirely healed.

Restoration of the External Ear.—Dr. B. FARQUHAR CURTIS presented a man upon whom he had operated for the removal of an extensive epithelioma of the external ear. The ear was entirely removed, with the exception of the lobe. At the time of the operation a very long flap was made from the neck, and the surface underneath grafted with skin at once. The flap was wrapped in gauze and included in the dressing. After a week the flap was turned up and secured to the front of the lobe. It should have been secured along its entire anterior edge, as atrophy occurred from the neglect to do this, and the consequent loss of blood-supply. For three weeks the pedicle was left in place.

Multiple Calculi of the Prostate.—Dr. L. B. BANGS read a paper with this title. By calculi of the prostate he meant those formed from material within the gland, and having no admixture of urinary salts. These calculi formed slowly, and made for themselves a sac. They were usually multiple, and were most commonly found in persons of middle age. Under the head of prostatic calculi some of the books described calculi which were in reality urethral calculi. The number of these prostatic calculi seemed to be almost without limit, for in many recorded cases 30 or 40 had been found, and in a few instances 200 or more of these stones had been found in one prostate. As a rule, these calculi did not give rise to marked or definite symptoms. A sensation of crackling on palpation through the rectum, according to his experience, might be absent, and yet the prostate gland might be full of these stones. One theory was that these calculi originated from the minute concretions found microscopically in a large proportion of the prostates examined after death. Some observers regard them as the normal production of the secretion of the gland. Personally, he would regard them as abnormal. Originally the calculi are round, but subsequently they become faceted. They usually consist of phosphate of lime, with some carbonate of lime and animal matter. The smaller the stone, the larger the proportion of animal matter. The following was a typical case: The patient, a man of 65 years, had always enjoyed good health. About five

years ago he passed through the urethra a small calculus, and this was repeated several times afterward. As these attacks were associated with a dull, bearing-down sensation in the left kidney, and frequency of urination, it was probable that these calculi were of renal origin. Shortly before coming under observation there had been increased frequency of micturition, with a certain discomfort and itching in the prostatic region. Examination showed a calculus lodged in the prostatic urethra, and on opening the perineum the exploring finger detected a stone projecting from the prostate in the median line. When this was removed, another calculus was found blocking up a pouch in the middle lobe. Twenty-nine other stones were then discovered and removed. There was no pus or urinary infiltration in this sac. These stones were composed of calcium phosphate. The speaker said that he was of the opinion that the first calculi passed were renal, and that after a while there was sufficient lesion of the prostate produced to admit of the discovery of the prostatic calculi.

Dr. S. ALEXANDER referred to a case of prostatic calculi, in which the stones were exceedingly small, and he exhibited the calculi. They had been taken from a man of 60 years, who had suffered for five years from symptoms of prostatic hypertrophy. He had had no renal symptoms. The larger stones were found by the searcher impacted in the prostate. The stones were all removed from the prostate before the latter was enucleated.

The Chairman, Dr. CURTIS, recalled having removed a prostatic calculus from a boy of 10 years. Half of the calculus had projected from the prostate into the urethra. In this case the symptoms of stone had been intense.

Dr. F. TILDEN BROWN said that in some instances the sensation of crepitation was very distinct, and was certainly interesting from the standpoint of diagnosis.

Dr. BANGS, in closing the discussion, said that when the stone had produced sufficient lesion to project into the urethra or bladder the symptoms would usually become marked, but it should be remembered that true primary prostatic calculi rarely produce any well-defined symptoms. In these primary cases there would be no hematuria. He desired, in conclusion, to state that he entirely disagreed with the statements usually made in the text-books to the effect that the concretions in the prostate are normal.

The Diagnosis of Some Common Injuries about the Shoulder.—Dr. AGNES C. VICTOR read a paper on this subject. She said that in conducting the examination it was extremely important to make first a systematic topographical survey of the shoulder and the adjacent regions, and next to investigate the physiology of the bones, joints, muscles, and nerves by having the patient execute all the possible voluntary motions, and then by carrying out all the possible passive motions. Lastly, the effect of the application of the faradic and galvanic currents should be tested. The paper was based chiefly on the results of exhaustive examinations of this kind that she had made in 14 cases of injury to the shoulder. These cases were for the most part instances of injury to the nerves of this region. In conclusion, the author expressed the opinion that in all cases of injury in the shoulder region the nerves and muscles should be systematically examined by the faradic and galvanic currents, not only at the first examination, but at each successive examination and dressing.

Dr. W. W. VAN ARSDALE said that the cases re-

ported in the paper had been observed and treated in his clinic, and that this study had cleared up certain points of interest in this class of cases. Surgeons, as a rule, were inclined to test the mobility of the shoulder-joint first, and, if motion were limited, to at once conclude that there was a joint-lesion. When the joint was movable but painful, the surgeon was apt to jump to the conclusion that the case was one of neuritis. The paper had demonstrated that this off-hand routine method often led to error. The use of electricity in these cases would prevent that atrophy which was of spinal origin. It was generally thought that rest produced atrophy, but in these cases just reported it had been found that general improvement followed such treatment.

Dr. W. R. TOWNSEND said that the railroad surgeon met with very many cases of so-called minor injury which were usually dismissed as trifling, and yet experience showed that many of these were often much more serious, and that our prognosis was frequently faulty.

SECTION ON PEDIATRICS

May 14, 1896

WALTER LESTER CARR, M.D., Chairman

Vaccination Eruption.—Dr. ROBERT S. ADAMS presented two boys with a vaccination eruption. There was nothing of interest about the method that had been employed in performing these vaccinations; but it was to be noted that as the first vaccinations did not appear to have been successful, both boys had been again vaccinated, and that now both the first and second vaccinations were "taking" at once.

Microcephalus.—Dr. SARA WELT-KAKELS presented a little baby with marked microcephalus. The child had been born after a normal labor, and had not been asphyxiated at birth. He had been nursed for a considerable time, and the body had developed well. There was no special history except that there had been slight convulsions when the baby was only 14 days old. The following were the diameters of the child's head: Fronto-occipital, 10 cm.—normally, 11.75 cm.; biparietal, 7.5 cm.—normally, 9.75 cm.; bitemporal (normal), 8 cm.; mento-occipital, 13.5 cm.—normally, 14 cm.; occipito-bregmatic, 8.75 cm.—normally, 9.5 cm. The circumference of the head was 32.5 cm., instead of the normal measurement of 34.5 cm. The speaker said that according to SACHS, many of these cases were the result of hemorrhage and compressing of the cortex. An operation in a case like this one did not seem to her justifiable.

Congenital Syphilis and Tubercular Bone Disease.—Dr. W. L. STOWELL presented a child of two years with dactylitis of both hands and feet, and with a well-marked dorsal curvature of the spine. The history was that the child, although fairly well nourished at birth, had soon wasted away, and that a few months later it had developed a papular and pustular eruption, together with boils and abscesses. The mother had also lost several infants from marasmus, and the father was now suffering from pulmonary tuberculosis. Examinations were made of the contents of a dactylitis joint, and also of the blood, and the conclusion was reached that this case was an example of syphilis and tuberculosis in the same individual. The child had been treated for the past four months with the usual constitutional remedies for tuberculosis, together with mercurial inunctions and mixed treatment, but had not improved.

Dr. ROBERT W. TAYLOR said that in all proba-

bility a definite history of syphilis in the father could be obtained. These combinations of pathological processes were just now attracting considerable attention, and among the more common examples was this one of the engrafting of tuberculosis on a syphilitic soil. The syphilitic individual seemed to furnish a soil peculiarly favorable to the development of tuberculosis. It is possible that in some rare instances the two infections may be transmitted hereditarily.

Dr. NEWTON M. SHAFFER said that in the case presented the tubercular lesions were unusually well marked. It was often very difficult to distinguish between the lesions of syphilis and those due to tuberculosis or resulting from malignant disease. He had been in the habit of looking upon "clubbed fingers" as indicative of tuberculosis rather than of syphilis. Although for many years he had been brought daily in contact with many tuberculous children he had been impressed with the rarity of this combination of syphilis and tuberculosis.

Convulsive Tic in Children.—Dr. CHARLES L. DANA presented a paper with this title. He said that there seemed to be much misconception regarding the true nature of many of the spasmodic disorders of children. The functional neuroses of childhood (not of infancy) could be conveniently classified under four heads, viz.: chorea, spasmodic tic, hysteria, and epilepsy. Many experienced physicians were unacquainted technically with spasmodic tic. It consisted of a rapid succession of spasms of certain muscles or groups of muscles, succeeded by a period of rest. Eventually this clonic spasm might become tonic. There was usually a tendency to localization in certain nerves, such as the facial, phrenic, or vagus. Between ordinary spasmodic tic and chorea minor were to be found certain milder spasmodic affections, known as "habit choreas." These were the ordinary twitchings of the face or shoulders occurring irregularly in children, and closely allied to true chorea. Chorea minor goes on to recovery in about ninety-five per cent. of the cases, but occasionally it goes on to some form of degeneration. Thus in a boy of five years, choreic twitchings began in the right side of the face, and later in the neck and arm. When first seen by him the boy was 12 years old, was intelligent, and without evidence of cardiac or other organic disease, but there were unilateral choreic movements of the face and hand, and twitchings and tonic spasms of the muscles of the neck, producing a spasmodic torticollis. In another boy there had been a severe attack of rheumatism at the age of 10 years, and an attack of chorea at 14 years. Following this there had been a reappearance of the chorea at intervals of two or three years, with gradual development of wry-neck and opisthotonos. The boy ultimately developed a violent form of chorea, and died from exhaustion. The autopsy showed marked meningeal thickening of the convexity of the brain and degenerative changes in the outer layer of the pyramidal cells of the cortex, especially those involving the legs, trunk, and arms. It was evident from these cases that at times the ordinary chorea minor fastened itself upon a certain group of muscles and produced a spasmodic tic. In other cases this chorea degenerated into a tonic spasm or some general tonic disorder. He would look upon chorea as an irritative disease resulting from some poison or infection, the seat of the lesion being in the cortex of the brain. On the other hand the spasmodic tics were degenerative diseases, sometimes secondary to an inflammatory neurosis like chorea, or developing independently like other

degenerative neuroses. There were also special forms of tic, as, for example, where the patient suddenly utters irrelevant or obscene words. These tics usually commence with irregular choreic movements. In his opinion, neither chorea nor spasmodic tic had any special relation to epilepsy.

Dr. WILLIAM H. THOMSON said that some of these cases were, as had been said by the reader of the paper, the sequelæ of chorea, and might last the remainder of one's life. The starting-point might be chorea or something else, but in every case the condition must be looked upon as a habit—indeed, inquiry would show that, although we were not conscious of it, every muscle of our bodies was constantly thrown into action by habitual central impression. The muscles were guided by the relations to space; hence the difficulty experienced in keeping one's balance when walking on the edge of a precipice. In his opinion, stammering was a true convulsive tic. It often had a choreic antecedent, and was commonly met with in rheumatic families. As he considered these convulsive tics nothing but habits, the first step in the treatment should be the removal of the child from his former companions and surroundings, so as to destroy old associations and habits, and also because a child among strangers exercised the will to the utmost to control the convulsive movements. Another important part of the treatment was the training of the powers of co-ordination by teaching these children dancing and bicycle riding. He knew of nothing which would so develop the co-ordinating functions of the body as much as riding a bicycle.

Dr. EDWARD D. FISHER said many of the spasmodic disorders of childhood were included under the general term "habit chorea." He believed that habit chorea and convulsive tic should be excluded from the category of true choreas. He believed that all cases of chorea had their seat in the brain, and that these spasmodic disorders were not allied to epilepsy. There was no connection between rheumatism and habit chorea, convulsive tic, or the choreiform diseases associated with degeneration of the brain. Habit chorea, like writer's cramp and similar affections, was best treated by measures directed to improving co-ordination. Thus in writer's cramp, a most excellent plan was to direct the person to frequently squeeze a rubber ball in the palm of the hand.

Dr. JOSEPH COLLINS said that in his experience convulsive tic had not often been a sequela of chorea. He was inclined to believe that habit spasm and co-ordinative tic were two different diseases, and he certainly did not believe that habits degenerated into disease. He referred to the case of a very intelligent young man who felt impelled at short intervals to raise his eyes to the horizon. This case did not partake of the nature of a habit or of a degenerative disease. As a practical bicyclist he must disagree with the statement of Dr. THOMSON regarding the amount of co-ordination required in riding the bicycle; he was positive that bicycle-riding did not require any more co-ordination than ordinary walking, and that it would do no good in the treatment of these disorders.

Dr. STOWELL said that he was equally positive that bicycle-riding did require much co-ordination. If this were not so there would be no necessity to learn to ride the bicycle. All persons, at some time, had had to learn even how to walk.

Dr. DANA, in closing, said that the term "convulsive tic" certainly did not have a sharply defined and universally accepted meaning, owing to our ignorance, but it had seemed to him well to consider

under one broad classification the twitching of torticollis and the psycho-motor tic described in Dr. COLLINS's case. So far as the tics represented any pathological process, it was a degenerative one—of this he was very positive.

SECTION ON GENERAL MEDICINE

May 19, 1896

REYNOLD W. WILCOX, M.D., Chairman

Intestinal Fermentation was the subject under consideration for the evening.

Prof. R. H. CHITTENDEN, of Yale College, opened the discussion. He said that he could hardly do more than call attention to the processes involved and some of the products formed. Bacteria constituted the great factor in intestinal fermentation and their amount depended much upon the nature of the environments, whether suitable to their development and multiplication or not. In a general way the proteid food, especially in soluble form, was the best for their existence and growth, though they also lived in carbohydrates. The reaction of the intestinal contents was also important, most forms existing best in alkaline medium, some could thrive in a neutral, and a few in an acid medium. The intestinal tract seemed to meet the conditions favorable, therefore, for their existence and development. The intestinal tract also offered the greatest variety of conditions for the bacteria, especially at its beginning, by the conditions arising from the entrance of the bile, the pancreatic secretions, the contents of the stomach, etc. Added to these conditions the amount of bacteria present was also affected by the normal or abnormal amount of peristalsis, the quantity and quality of food.

Prof. CHITTENDEN spoke of the great variety of bacteria in the intestinal tract, and said that it was quite evident that many of the ingested bacteria were killed or their growth stopped by the germicidal actions of the gastric secretion, especially the acid. The fact that the stomach contained but comparatively few bacteria might be taken as indicating that a great many were destroyed by its secretions. It was easily seen, therefore, that the amount that passed was influenced by the condition of the stomach at the time of their ingestion, and that under normal conditions the bacteria came wholly from without.

Prof. CHITTENDEN cited a case in which a guinea-pig had been taken from the mother by cesarian section, never allowed to breathe other than sterilized air or take other than sterilized food, and it thrived much better than its brothers and sisters that lived under the ordinary conditions; thus indicating that bacteria were not absolutely necessary for the digestive changes in the alimentary tract, but even possibly harmful at all times. The bacilli lactis aerogenes existed in greatest quantity in the small intestine, while the bacillus coli communis prevailed in the large intestine. Pyogenic cocci existed in large quantities in the intestines, and bacteria might be found in the feces, though some claimed they were in a weakened condition.

Prof. CHITTENDEN spoke at length of the products resulting from the metabolic processes of bacterial life, and the effects of these products upon the system, and said while there was much that was not known concerning these products, yet enough was known to understand something of their influences in producing a great class of nervous symptoms as well as pathological conditions. Not only the direct products of fermentation, due to the bacterial life,

were capable of producing untoward effects upon the system, but it was a question if these products by synthesis were not able to form even more toxic products. There could be hardly any doubt that in minor disturbances many of them depended upon absorption of the products of excessive intestinal fermentation. This was indicated by the febrile disturbances that often followed disturbance of intestinal peristalsis, etc.

Prof. CHITTENDEN discussed at length the means by which excessive intestinal indigestion could be arrested. The main indication was doubtless the regulation of diet; though for a long time mercurials had been extensively used, now other antiseptics were also much employed. He was inclined to lay much stress upon the dietary. Milk was an important form of food for the diminution of excessive fermentation. It was a question if milk did not have the power of resisting certain forms of fermentation and aiding others. Upon milk diet, the bacteria in the feces were diminished, and a diet of sterilized milk diminished them still more. Moreover, the milk acted upon the entire alimentary tract favoring antiseptic condition, not by any antiseptic action of its own, though there remained a nuclein which might possibly have some germicidal action. It was also possible that formation of lactic acid checked the growth of bacteria when a milk diet was used.

The Bacteriology of the Stomach and Practical Therapeutics.—Dr. E. J. KELLOGG, of Battle Creek, Mich., read a paper with this title and said that much attention had been given during the last dozen years to the chemistry of digestion, but little had been done in the way of the study of the bacteria of the stomach in relation to therapeutics. He had made a careful comparative bacteriological and chemical study of the stomach fluid in 377 cases, and presented some of the conclusions in this paper.

The mode of examination used and the information sought were, (1) the number of microbes per cubic centimeter the stomach fluid contained; (2) the presence or absence of gelatin-liquefying bacteria; (3) the presence or absence of gas-producing bacteria; (4) the presence or absence of acid-forming bacteria; (5) the toxicity of the products of bacterial activity in the stomach fluids.

Within the past year 377 examinations had been made of stomach fluids taken from more than 350 persons, and of these fluids examined 191 were found to be absolutely sterile, while 67 contained less than 50 bacteria to the cubic centimeter, a number so small that it might be looked upon as accidental and these fluids also classed as sterile. On the other hand 102 specimens contained bacteria from 100 to more than 2,000,000 per cubic centimeter.

He was not surprised to find large numbers of bacteria, but was not a little surprised to find such a large number of perfectly sterile specimens of stomach fluids. Especially did this fact surprise him, as CAEDEC and BOURNAY recently stated that the stomach and intestinal fluids were not destructive of micro-organisms, as was formerly supposed, and likewise the assertion commonly made by bacteriologists and physiologists that bacteria were not only present in the alimentary tract, but were useful in the digestive process.

The fact that no bacteria at all were found in 50.8 per cent. of 377 stomach fluids, examined at the end of one hour of digestion, seemed evidence enough to demonstrate the proposition that the normal stomach was able to destroy the microbes which accidentally entered it through the mouth or nose, and that microbes played no part in normal digestion. In

further confirmation of this view Dr. KELLOGG quoted KURHOFF and WAGNER.

His method of examination was based mainly upon that of HAYEM and WINTER.

In comparing the results of bacteriological examination with the results of chemical examination he had noted very carefully the relation of bacteria to: (1) The calculated acidity which represented the combined value of free hydrochloric acid and the combined chlorine diminished by the fatty acids present; (2) the acidity; (3) the free hydrochloric acid; (4) the combined chlorine; (5) the coefficient of starch digestion; (6) the coefficient of salivary secretion; (7) the coefficient of chlorine liberation; (8) the coefficient of absorption.

The summary of this comparison was as follows: Of the 191 cases that were sterile, 80 were hypopepsia, and in 28 the amount of chlorine eliminated was normal. There were then 83 cases of hyperpepsia, and in 55 of these combined chlorine was in excess and free hydrochloric acid normal or in excess; in 12 cases free hydrochloric acid was deficient, and in 1 it was absent. Combined chlorine was deficient or less than 1.55 milligrams per 100 c.c. in 16 of the cases. Hydrochloric acid was deficient in 68 of the 80 cases of hypopepsia and normal or in excess in 12. It appeared, therefore, that a sterile condition of the stomach fluid might exist in hypopepsia as well as in hyperpepsia, for 42 per cent. of the sterile cases were cases of hypopepsia, whereas hyperpepsia was found in only 43 per cent. of the cases. In 48 per cent. of the cases in which bacteria were absent free hydrochloric acid was less than normal in quantity, being below 25 milligrams per 100 c.c. of stomach fluid, and in 23.5 per cent. it was absent altogether.

The fact was noticed that the anaërobic germs were found most abundant in cases where the total acidity, the free hydrochloric acid, the coefficient of liberation and the coefficient of absorption were the lowest; and it appeared that the anaërobics flourished better in an acid medium, or rather resisted the influence of hydrochloric acid better, than the aërobics did.

The coefficient of absorption in the anaërobic infected cases was .38, as compared with .34 in the sterile cases.

Dr. KELLOGG then discussed the method of the relation of urinary toxicity to the bacteria in the alimentary canal. The normal urotoxic coefficient was .46, but in a case of a lady suffering from a severe attack of migraine, with the stomach infected to a high degree, the urotoxic coefficient was found to be six times the normal. In another case of marked infection, a young lady suffering from epilepsy, the urotoxic coefficient, as she was recovering from a series of seizures, was found to be more than double the normal. He said it was possible to cite numerous similar cases. His studies, he thought, had established one fact of considerable importance, *i.e.*, that the fermentation test heretofore relied upon was of but little value, and that bacteriological examination was the only means by which it was possible to determine accurately the presence or absence of gastric infection.

Dr. KELLOGG, in discussing the treatment of cases of gastric infection, said that he found a dry diet had the best effect, generally speaking. Nuts were quite good if well disintegrated, and hydro-therapy and systematic exercise had a beneficial effect.

For patients with dilated stomachs or flaccid gastric walls he found a pad, made on the principle of a truss, of great comfort and service.

Dr. W. H. PORTER said the papers read were very

instructive and interesting. He thought that from a practical standpoint the etiology resolved itself into three elements or conditions: The ingestion of material not adapted to digestive and nutritive purposes; resulting from this, a system poorly nourished; and, finally, digestive fermentation with great numbers of bacteria. Diet, therefore, was the primary cause, and its regulation was therefore the main factor in treating such cases. He thought a well-regulated mixed diet often gave the best results, but in more aggravated cases milk or buttermilk proved of the greatest benefit. The milk diet furnished sufficient nutrition, and did not furnish the culture media for bacteria that a promiscuous diet did. Especially could this be said of buttermilk. Some of the so-called antiseptics were quite extensively used, and rapid and brilliant results were frequently reported.

Dr. H. D. CHAPIN said he thought the subject under discussion was of very great importance, inasmuch as all wasting diseases, as phthisis, etc., were seriously affected by the condition of the alimentary tract. He, too, thought that the dietary was of greatest importance, and, though patients often insisted that they could not take milk, for instance, yet when made to take it slowly and alone, found that they could take it, and thrived upon it. In some cases a diet of hot water and rare beef proved beneficial. Many of the cases of children suffering from indigestion, especially in the summer time, could not take milk; and hot water alone, or egg-water often proved sufficient to restore the normal condition. He thought that little effect could be produced by the use of intestinal antiseptics, unless the medication was pushed to such an extent as to disturb the system; nevertheless, he had to confess that he had obtained some of his best results with large doses of subnitrate of bismuth.

Dr. H. POWER said that for the past five years he had been trying to determine the relation between intestinal fermentation and convulsive seizures. To this end, in his clinical work, he had been treating epileptics by combining intestinal antiseptics with the bromides, and carefully watching the results. He had used the different antiseptics, but found that the continued use of most of them disturbed the system, a combination of borax and boracic acid being the least disturbing. He had turned his attention to treating these cases by dietary, regulating the bowels, etc., and had been able to control epileptic cases without the use of bromides.

Dr. WM. H. THOMSON said that for a number of years he had been accustomed to advocate that there was a fundamental difference between organic and functional nervous diseases, and that no organic nervous disease could be intermittent in its symptoms. No person, however astute, was able to tell that a member of his audience, for instance, would in a few minutes be in an epileptic fit, or that a brilliant and vivacious lady would the next day be prostrated with an attack of migraine. The remotest pathological basis for either could not be discovered, and no clinical proof was present. He had argued that these conditions were, in all probability, due to the action of poisons. Poison might circulate in the body for months and yet not until a certain hour did it reach that condition where its explosive effect was manifested. Was it not natural to infer that the functional nervous diseases were more likely due to toxins than to molecular nerve-changes? He had treated epilepsy for years as a toxic disorder and had employed gastro-intestinal antiseptics. The diet, however, was of primary importance, and, recognizing the relation of meat to

convulsions, he had excluded butchers' meat from the dietary. For years he had been accustomed to treat migraine with intestinal antiseptics, and he was glad to hear Dr. KELLOGG indicate that he thought it was due to toxins.

In 1893 he had read before the Pathological Society a paper on Graves's disease, in which he had taken the ground that the name "exophthalmic goiter" was a misnomer, for the disease often existed without the exophthalmos or the goiter. He had also taken the view that it was not a disease due to the disturbance of the sympathetic system, but that it was a toxemia. His attention had been turned to the subject by the case of a lady who suffered from the disease, and was cured by being put upon matzoon. She afterward returned to a meat diet and the disease returned, but again disappeared upon returning to the matzoon. The question naturally arose, What relation did digestion bear to the cause of the disease if by the use of proper diet he could reduce an enlarged thyroid gland, quiet a rapid heart, and restore the general health? His conclusion had been that the disease was due to intestinal fermentation, and that the ptomaines paralyzed the vaso-motor system. Since 1893 he had treated 19 cases of Graves's disease, and now had no more fear of it than of malaria treated with quinine. The thyroid gland, he thought, was doing all it could to neutralize the ptomaines; and its excision, in the hope of curing the disease, was no more to be considered than the excision of the kidney for the cure of diabetes mellitus.

Dr. THOMSON said that he considered bismuth *the* intestinal antiseptic; and in the treatment of typhoid fever he always used 80, sometimes 120, grn. per day. For a long time his favorite remedy for the treatment of chronic gastritis had been resorcin in solution. For gastric ulcer, which he found to be a very common condition, he used $\frac{1}{10}$ grn. of bichromate of potash and 3 grn. of subcarbonate of bismuth before meals, and resorcin after.

Dr. KELLOGG said he had been impressed with the remarks upon diet. He thought too much faith had been placed in hydrochloric acid and perhaps not enough in the mucous membrane of the stomach itself. He had been convinced that migraine was due to indigestion, and the immediate cause due to disturbance of the abdominal ganglion. Deep pressure about two inches to the side of the umbilicus revealed a small spot of great tenderness if the patient had had an attack of migraine just previously. If both were tender it indicated the trouble was on both sides; if one side were tender, the trouble had been on that side.

Professor CHITTENDEN said it was the general idea that free hydrochloric acid was necessary for vigorous digestion, but this was not necessarily so. The combined acid also had considerable germicidal action.

Dr. PORTER moved that the Section extend a vote of thanks to Dr. KELLOGG and Professor CHITTENDEN for the papers they had presented. Dr. BRANNAN seconded the motion. It was unanimously carried.

Degeneracy of the Spanish.—Under the startling heading "Dinamitercs," *El Siglo Medico* has published a series of long articles on the present condition of Spanish society, which that journal states is being undermined by drunkenness and clandestine prostitution, and appeals urgently for a better system of education, which it looks to as a remedy capable of raising Spanish women to a sense of the worth of purity.—*Medical Press*.

ASSOCIATION OF AMERICAN PHYSICIANS

Washington, April 30 and May 1 and 2, 1896

(Concluded from page 704)

THIRD DAY—MORNING SESSION

A Case of Esophageal Hemorrhage with Cirrhosis of the Liver.—Dr. G. M. GARLAND, of Boston, presented the paper. He said that these cases were extremely rare. They were first described by the French writers and were then taken up by the Germans. He had seen only three cases—one sent him by Dr. OSLER, another in consultation with Dr. COUNCILMAN, of Boston, and the third in the Boston City Hospital. This last case was at first diagnosed as ulcer of the stomach, and Dr. SHATTUCK saw him and concurred in this diagnosis. Dr. GARLAND believed, however, that a more careful study of this condition would show it to be a more common complication than was now supposed. The patient under consideration had had repeated attacks of vomiting. He afterward went to the Massachusetts General Hospital where the diagnosis of cirrhosis of the liver was made. Toward the latter part of his life fluid blood flowed from his mouth. He never complained of dyspepsia, and never had a chill, but complained of slight burning and itching in the right side. At the autopsy the appendix was found inflamed, swollen, and gangrenous. There was no peritonitis and no fluid in the peritoneal cavity, but the intestines were filled with blood. There was cirrhosis of the liver, with splenitis, and enlargement of the esophageal veins, with edema of the lungs. This case was interesting on account of the existence of appendicitis without any apparent cause.

Another case sent by Dr. OSLER had edema of the lungs, dilatation of the esophageal veins, and general anasarca, large amounts of fluid being withdrawn from the abdomen. The peritoneal cavity was opened, and washed with salt solution.

The third case was in the Boston City Hospital. The cirrhosis of the liver was not diagnosed during life. He had shortness of breath with edema of the lower extremities. The abdomen was tapped. He spat up blood, had delirium at night, and passed tarry stools. At the post-mortem the inferior vena cava was found to be filled with a yellow thrombus, in which streptococci and staphylococci were demonstrated. There were cirrhosis of the liver, dilatation of the esophageal veins, and enlargement of the spleen. The case was interesting on account of the streptococci infection, though he could not tell how the infection had occurred.

It was useless, he thought, to draw conclusions from such a limited number of cases regarding diagnosis. The hemorrhages might continue for a long time, but there might be apparent intervals of recovery. In some cases the distention of the esophageal veins produced such pressure on the mucous membrane of the esophagus as to almost wear it away and leave only a thin partition of tissue between, and it almost seemed that the pressure must break down this thin septum of tissue. The welling up of blood from the esophagus in his case was marked, while in ulcer of the stomach he did not know whether this was a constant symptom or not.

Dr. GRAHAM said that the condition of the veins of the esophagus was not necessarily dependent in all cases upon cirrhosis of the liver. A case had been reported of a boy 17 years of age who died with a diagnosis of cirrhosis of the liver. On post-mortem it was found that he had a varicose condition of the esophageal veins, with hemorrhage from that site, but the liver was quite healthy. He

mentioned the case to show that there might be a varicose condition of the esophageal veins without disease of the liver.

Dr. WEIR-MITCHELL related a case of a child of a physician who had scarlet fever, and a few months afterward she began to have hemorrhages. Finally she died from hemorrhage, and at the post-mortem there were found at the lower end of the esophagus 2 or 3 largely dilated veins, which brought out the remark from one of the doctors that they were esophageal piles, for they had that appearance. There was no disease of the liver, so the case appeared to be an idiopathic condition. The walls of the esophagus became so thin that they broke down and the stomach was deluged with blood.

The President, Dr. JACOB, said that the hemorrhages in cirrhosis of the liver were generally gastric or intestinal, and there must have been some good reason in these cases why they came from the esophagus—probably from some local changes in the blood-vessels. Dilatation alone, unless very excessive, was not a sufficient reason why the vein should burst. There must be some structural changes to account for it, yet mention of such changes was absent from the post-mortem reports. Even in young patients there might be aneurism from defective structure of the arterial walls, and hemorrhage from veins was a frequent result of atheromatous degeneration of the walls of the veins. As two of the cases reported by Dr. GARLAND were in advanced age, atheromatous changes might well have taken place, and he suggested that, in future, attention be given to this point.

Absorption in the Stomach.—The paper was read by Dr. S. J. MELTZER, of New York. The author stated that the stomach did not absorb water, and that experiments had shown that the full amount of water given by the mouth could afterward be recovered from the stomach. Strychnia in watery solution introduced into the stomach of dogs (the pyloric end being ligated) had no effect, while alcoholic injections, made under the same circumstances, were quickly absorbed. Cats whose pylorus was tied succumbed in 30 minutes to 50 mg. of alcoholic solution of strychnia. Chloral hydrate in watery solution was not absorbed by the stomach (the pylorus being tied), while an alcoholic solution was readily absorbed. Against the conclusion that the mucous membrane of the stomach did not absorb strychnia in watery solution it might be stated that the stomach was never entirely empty so that the strychnia could not come into contact with the mucous lining. But strychnia injected between the mucosa and muscular layer of the stomach of a rabbit (the vessels of both the pylorus and cardia being tied) the animal died in a few minutes from violent convulsions, showing that the ligation of these vessels did not prevent the absorption of strychnia. Ligation of lymphatic vessels and veins did not prevent the absorption of strychnia and hydrocyanic acid when they came within reach of the mucous membrane. Strychnia did not readily penetrate the mass in the stomach, but prussic acid did and killed a rabbit in a few minutes. Six to 10 mg. (.006-.010) of strychnia in water introduced into the stomach of a rabbit (the pylorus being left open) would bring on tetanus in a short time, while with the pylorus closed even so large a dose as 200 mg. (.200) left in the stomach for several hours produced no effect at all. It seemed, therefore, that the mucous membrane did not absorb any of the aqueous solution of strychnia, the esophagus absorbed poorly, while the pharynx absorbed the best. The rectum absorbed strychnia

as well as the pharynx, as tetany could be rapidly produced in that way. Prussic acid was readily absorbed from the stomach, even when the pylorus was ligated; this, perhaps, being due to its volatility, as gas seemed to be readily formed in the stomach.

The President, Dr. JACOB, said that the results of clinical observation had demonstrated the truth of what Dr. MELTZER had found experimentally—that the pharynx was a better absorbent than the stomach. There was no doubt that morphia would show its effects much later when taken internally than when allowed to be absorbed from the mouth. A few drops of Magendie's solution held in the mouth would take effect in a few minutes; and a bad coughing spell, which would not yield to opium taken internally, could be readily checked by a few drops of Magendie's solution sucked up into the mouth without water.

Report on Antivivisection Bill.—The president called upon Dr. W. H. WELCH, the chairman of the Committee on the Antivivisection Bill, for his report, and Dr. WELCH read the draft of a memorial to Congress against the passage of the pending bill. The report and resolution were unanimously adopted and signed by all the members of the association present.

Dispensaries, and Their Use in Teaching.—Dr. M. H. FUSSELL, of Philadelphia, read the paper. He gave the details of the management of the outdoor service of the University of Pennsylvania.

Mescal Buttons (*Anhalonium Lewinii*) was the title of the last paper, by Drs. D. W. PRENTISS and F. P. MORGAN, of Washington. Dr. PRENTISS showed a growing specimen of mescal buttons, which resembled a cactus, or the end of a pineapple, except that it was much smaller; and also the dried specimens with samples of the three alkaloids which had been isolated. The drug, he said, had been used by the Mescal Indians in the Rio Grande valley in their religious ceremonies from time immemorial. The effect was almost always uniform, being most marked in the production of hallucinations and distorted color-visions; but the color-visions were only visible when the eyes were closed. The characters were various and constantly changing, and were of the most beautiful description. One described them as resembling a series of glass tubes of all kinds of fantastic shapes, through which glass balls of all the colors of the spectrum were constantly changing, while the tubes were as constantly changing their forms. Another observer described a huge pearl seen in his vision, larger and more beautiful than any pearl ever seen, from which bright rays diverged in all directions, and, reaching a circumference, were reflected back again to the pearl. Then the vision was marred by a huge giant who approached the pearl and smashed it with his club. The drug did not produce sleep, but rather wakefulness; yet the Indians, after being under the influence of the drug all night, were entirely refreshed the next morning and able to perform their duties as though they had slept all night. The subjective sensations were of the pleasantest character, and there were no bad results at any time from the use of the drug. Dr. PRENTISS described three alkaloids which had been separated from the drugs, and two resinoids, which seemed to contain the active principle, and gave a brief account of some experiments made with these agents. The drug had been used by a gentleman in Kansas (not a physician) in nervous exhaustion and irritable cough, with alleged good results.

Papers Read by Title.—"Bacteriological Examinations in Acute Endocarditis," by Dr. W. H.

WELCH, of Baltimore; "Note on Neisser's Granules in the Blood," by Dr. WM. OSLER, of Baltimore; "Hepato-Pulmonary Abscess," by the same author; "A Case of Tricuspid Stenosis with Other Heart Lesions and Cardiac Liver, with Specimens," by Dr. GEORGE DOCK, of Ann Arbor; "Raynaud's Disease and Erythromelalgia," by Dr. J. H. MUSSER, of Philadelphia; "Abscess of the Spinal Cord," by Dr. M. A. STARR, of New York; "Prevalence and Fatality in Pneumonia," by Dr. C. F. FOLSOM, of Boston; "A Case of Subdiaphragmatic Abscess; Diagnosis; Operation; Subsequent Death from Pleurisy of the Other Side," by Dr. E. G. CUTLER, of Boston; "A Case of Wandering Phlebitis (Periphlebitis)," by Dr. W. P. NORTHRUP, of New York; "The Pathology and Pathogenesis of Acute and Subacute Diffuse Nephritis," by Dr. W. B. COUNCILMAN, of Boston; "Syphilitic Nephritis," by Dr. H. A. LAFLEUR, of Montreal; "A Case of Actinomycosis, with Specimens," by Dr. T. S. LATIMER, of Baltimore; "Protracted Simple Continued Fever," by Dr. J. M. DA COSTA, of Philadelphia.

New Members and Officers.—The following were elected members of the Association: Dr. ADLER, of New York; Dr. J. J. ABEL, of Baltimore; Dr. WALTER REED, U.S.A.; Dr. STUART, of Philadelphia.

The following officers were elected for the ensuing year: President, Dr. J. M. DA COSTA; vice-president, Dr. FREDERICK C. SHATTUCK; recorder, Dr. J. MINIS HAYES; secretary, Dr. H. HUNT; treasurer, Dr. W. W. JOHNSTON; counselor, Dr. I. E. ATKINSON.

AMERICAN LARYNGOLOGICAL ASSOCIATION

TEIGHTEENTH ANNUAL CONGRESS

Held at Pittsburg, Pa., May 14 to May 16, 1896

President, Dr. WM. H. DALY, of Pittsburg

CLOSING SESSION

Discussion on the Sequelæ of Syphilis and their Treatment.—The discussion was opened by Dr. C. H. KNIGHT, of New York. He remarked that the diagnosis of late nasal syphilis is not always easy. It may be mistaken for sarcoma and excision of the jaw needlessly advised. Severity of symptoms varies according as the soft parts alone, or, in addition, the hard parts, are involved. Specific disease is not by any means responsible for all septal perforations.

Where the bones are affected we must decide (1) when and how to remove dead bone, and (2) how to correct resulting deformity. The writer pleaded for conservatism in dealing with sequestra, unless accessible and quite separated.

Where dead bone is firmly attached or imbedded—or where we are uncertain as to its extent, or again where it is high up in the nares—we must act cautiously. Large masses can be removed by the Rouge incision if they are loose and hard.

For the deformities resulting from bone affections Dr. KNIGHT advocates the Martin platinum bridge. This method is an excellent one if certain precautions are followed. All active symptoms of the disease must have been long quiescent. Radical treatment must have been followed up. The bridge itself must be so fashioned as to avoid friction and pressure. The dissection of the soft parts must be ample enough to avoid tension when once the device has been placed in position.

In closing, the writer said that some cases might

be treated by slipping a simple platinum plate under the skin of the dorsum of the nose—a bed therefor having been made by intra-nasal dissection. This plan is much simpler and equally applicable in moderate deformities.

Discussion was continued by Dr. J. E. NICHOLS, of New York, who spoke upon the question as affecting the pharynx. Syphilitic destruction of the uvula or tonsils did not greatly matter, but perforation of the soft palate is quite another thing. Destruction of the epiglottis may give no trouble. Adhesions of the pharyngeal wall to the inferior faucial pillars may cause difficulty of articulation and interfere with lingual movements.

In adhesion of the soft palate to the pharyngeal wall the use of caustics should carefully be avoided as they increase adhesion. Potassic iodide should be regularly given. The symptoms of adhesion are: impaired voice, mouth-breathing, traction on the orifices of the eustachian tubes, causing aural complications, even otitis media, anosmia, and accumulation of muco-pus in the pharynx.

As to treatment, the cautery and knife have both been employed with subsequent digital or instrumental dilatation. There is always great liability to a return of the deformity. The writer then described the operation devised several years ago by him for the relief of adhesion between the soft palate and pharyngeal wall.

Dr. W. K. SIMPSON spoke on the question as related to the larynx. He said that the word "sequelæ" had somewhat of a peculiar significance as applied to syphilis. In this disease, what we call sequelæ are in reality the later manifestations of the disease, occurring in regular order unless prevented by treatment. We may have: 1st, acute exacerbations coming on in long-continued tertiary cases; 2d, active tertiary outbreaks with structural changes still going on; 3d, syphilitic lesions on other parts of the body, with chronic laryngeal hyperemia, possible thickening, retained secretion, and hoarseness from overuse of the parts; and 4th, changes which are excited by climate and occupations.

In laryngeal obstruction occurring suddenly in the adult, we may find a smooth, uniform swelling, which covers a gumma, a perichondritis or a subglottic stenosis. In many of these cases the intralaryngeal injections directly into the substance of the tissues may effect good results. Tracheotomy may be necessary in threatening cases. Dilatation is a procedure of great value and this can best be done by intubation. The constant pressure of the tube produces absorption and may wear out the tendency to recurrence of the stenosis.

Dr. JOHN O. ROE had found the most serious nasal conditions in children with hereditary syphilis. The entire septum and even nasal bones may be destroyed. In adults, abscess of the septum frequently results, leading to destruction of the sesamoid cartilages. He was accustomed to repair these cases by a subcutaneous flap operation.

Dr. ROALDES believed that nearly all the advantages of the Rouge operation could be obtained by intra-nasal perforation of the sequestrum by drilling and crushing with the forceps.

Dr. INGALS had found syphilitic ulcerations of the cartilage rare unless the bony septum was also involved. From five to ten per cent. of perforations were probably syphilitic.

Dr. PORCHER spoke of the nasal appearance in leprosy. He advocated in syphilis the use of mercury controlled by minute doses of opium.

Dr. HUBBARD believed that mercury is apt to cause increased destruction of cancellous tissue

unless we can keep the parts affected perfectly free. Dr. DELAVAN called attention to the risk of primary and secondary hemorrhage after operations in these cases.

Remarkable Case of Fibro-chondroma of Bronchial Origin, or So-called Supernumerary Ear, Removed from the Throat of an Infant Six Weeks Old.—The case was reported by Dr. A. W. DE ROALDES, New Orleans.—The child, soon after birth, was noticed to be making a queer noise while breathing, and seemed to strangle. A growth was discovered coming down, when the child cried, from behind the palate, moving, on continued crying, down toward the larynx, and finally lying in the dorsum of the tongue. Its covering looked like skin rather than like mucous membrane. It was attached to the left posterior faucial pillar and was removed by evulsion. In general shape it suggested an ear and contained cartilaginous nodules. The post-nasal space was free and the child's external ears normal.

Examination showed the covering of the tumor to be made of skin, with its usual histological elements, and to contain fat and connective tissue. The growth was to be classified as a bronchial chondro-fibroma.

Acute Disease of the Lingual Tonsil, by Dr. HENRY L. SWAIN, of New Haven (read by title).—Many cases of this nature are probably overlooked, even by special workers. Acute lingual tonsillitis is a frequent disease, causing symptoms which are referred to other parts of the mouth, because the latter parts are more frequently inflamed and more easily examined.

The anatomical structure and environment of the lingual tonsil make it evident that its acute inflammation is rarely of the peritonsillar or quinsy type. The writer makes three varieties of inflammation—simple, follicular, and peritonsillar or phlegmonous. Symptoms are, as might be expected, modified by the difference in the locality affected. Cough is especially troublesome and persistent, and is frequently referred to the larynx. In the most severe cases the symptoms are greatly aggravated. The epiglottis, and even glottis, may become involved, requiring prompt interference. Tracheotomy may become necessary.

The treatment of these conditions is fortunately a very satisfactory one. Dr. SWAIN prefers applications of glycerite of boro-glycerin, applied to the affected area, followed by a powder containing tannin with a small proportion of morphine. Frequent use should be made of hot demulcent gargles. Systemic remedies are indicated in the same way as in other forms of tonsillitis.

The paper closed with the clinical history of a case of abscess of the lingual tonsil, which had followed a faucial tonsillitis. It was ushered in by a sharp attack of edema glottidis. The phlegmon formed close to the ary-epiglottic fold, and opened well back toward the arytenoid cartilage.

Treatment of Simple Acute Laryngitis and Bronchitis, by Dr. THOMAS HUBBARD, of Toledo (read by title).—The writer called attention to the many inconsistencies prevailing in literature as to the use of expectorants. Much of the current treatment is fallacious. The popular employment of stimulating expectorants, fortified by some opiate and followed by soothing applications, has blinded us to the value of other therapeutic measures.

He called attention also to the pathology of acute catarrh of the larynx and bronchi. Hyperemia occurs with more or less swelling. There results a condensation of the cells lining the air-tubes, for the same number of cells is made by the swelling to oc-

cupy a smaller proportional area as the caliber of the tube is lessened. Hence the outlets of the secreting glands are closed, and there is great difficulty in re-establishing the mucous flow. The retention and decomposition in the substance, as well as on the surface of the membrane, cause irritation.

The writer, therefore, advocated the use of relaxing expectorants. His favorite remedy is apomorphine in $\frac{1}{32}$ grn. doses every two or three hours. Except in cases of severity and in debilitated patients he has rarely found stimulating expectorants necessary. So, also, the need for opium preparations is lessened.

Squamous Epithelioma of Soft Palate Cured by Injections of Caustic Potash.—By Dr. T. HUBBARD.—Patient, male, had had for over a year a flattened mass partly in soft palate and partly in anterior faucial pillar of left side. All internal and local treatment had been useless. Cocaine was used to relieve pain in swallowing, and the habit had been established. Bodily prostration was extreme. Only milk and ice-cream in small quantities could be taken. The cocaine habit was first broken up, and then through a curved platinum needle caustic potash injections were made, destroying a conical shaped mass of the growth. Injections were repeated on the reappearance of any proliferating epithelium around the edges of the mass. Rapid cicatrization and improvement in general health followed, the patient gaining 40 lb. in two months. No recurrence to date (two years).

Two Cases of Sarcoma of the Nasal Chambers and Accessory Sinuses, by Dr. A. A. BLISS, Philadelphia.

Case I.—Child aged four, with left nostril obstructed from first year with polyps, which were removed, but recurred in six days. In the next eight months over thirty such removals had been done. When first seen by Dr. BLISS left nostril was occluded, septum pushed over to the right, left eyeball protruded, but no glandular enlargements. Antrum opened and found full of a fungoid mass, which was cleaned out. Considerable hemorrhage followed, checked by gauze plugging. No recurrence of growth, but in six weeks glands under the jaw became involved, and symptoms arose suggesting involvement of brain and respiratory centers. Death six weeks later.

Case II.—Child of nine years. Occlusion of left naris; enlarged cervical glands and exophthalmos. It was stated that the boy had been well up to three weeks before. His bad general condition precluded any operation.

Read by Title.—During the congress the following additional papers were read by title:

"Some Thoughts about the Prophylaxis of Nasal Catarrh," by Dr. CARL SEILER, of Philadelphia.

"A Case of Myxedema of the Throat," by Dr. J. W. FARLOW, of Boston.

"Tracheal Stenosis," by Dr. SAMUEL JOHNSTON, of Baltimore.

"Intermittent Dysphonia Spastica," by Dr. F. I. KNIGHT, of Boston.

"The Treatment of the Early Stage of Diphtheria," by Dr. S. H. CHAPMAN, of New Haven.

"Erysipelas of the Air-passages," by Dr. WM. PORTER, of St. Louis.

"Some Observations on Laryngeal Tuberculosis," by Dr. S. O. VAN DER POEL.

"Reflex Epilepsy from Lymphoid Disease of the Pharyngeal Vault," by Dr. U. G. HITCHCOCK, of New York.

Elections.—At the executive session the following

were elected active fellows: Dr. EMIL MAYER and Dr. W. F. CHAPPELL, of New York; Dr. T. M. HARDIE, of Chicago; Dr. G. V. WOOLEN, of Indianapolis; and Dr. WARD, of Pittsburg.

Officers elected for the coming year are: President, Dr. C. H. KNIGHT, of New York; first vice-president, Dr. T. MORRIS MURRAY, of Washington; second vice-president, Dr. D. N. RANKIN, of Allegheny; secretary and treasurer, Dr. H. L. SWAIN, of New Haven; librarian, Dr. J. H. BRYAN, of Washington.

AMERICAN ORTHOPEDIC ASSOCIATION

TENTH ANNUAL MEETING

Held in Buffalo, May 19, 20, and 21, 1896

ROYAL WHITMAN, M.D., of New York, President

FIRST DAY

The Rationale of Gymnastic Exercise and Pressure Correction in the Treatment of Scoliosis.—

Dr. L. A. WEIGEL, of Rochester, in a paper on this subject, said that as an exclusive treatment it certainly had its limitations. It could not be shown that normal muscular action was sufficient to overcome the actual anatomical changes that are known to have taken place. Many cases of scoliosis did not show any marked muscular weakness, and yet the curvature was progressive; he would therefore limit gymnastic treatment to the postural varieties of curvature. His experience had been that the muscular deficiency could be quickly made good, and he was in doubt as to the advantages of prolonging the gymnastic treatment beyond this point. A rational method of treatment of these cases would include other things than gymnastics, *e.g.*, mobilization of the spine. His conclusions were: (1) That gymnastic exercises as an exclusive method of treatment must be limited to the very early stages, and to deformities which are postural, pure and simple; (2) that exercises of all kinds are insufficient, even in mild cases; (3) that the treatment of mobilizing the spine should precede any attempt to develop the muscles; (4) that the removal of the superincumbent weight was an important element, and one of great value in sustaining the effects of exercise; (5) that over-development was to be avoided; and (6) that empiricism should have no part in the treatment of scoliosis.

The Rapid Cure of Rotary Lateral Curvature of the Spine and other Postural Deformities by means of Thorough Development and Corrective Exercises with Heavy Weights; with a Demonstration of the Method.—

Dr. JACOB TESCHNER, of New York, present by invitation, read a paper on this subject. He believed that a weak or rudimentary condition of the muscular system was the foundation of this disorder, and that, therefore, the indication was to develop the whole muscular system. He had discontinued the use of all supporting appliances in cases which he considered amenable to the treatment under consideration, because he thought they interfered with the mobility and freedom of muscular action. In his opinion, lack of muscular strength and habitual faulty position were the important etiological factors. All the exercises with light weights should be conducted before a mirror, so that faulty position and faulty methods of exercising might be readily guarded against. At each visit the patient is put to his individual limit of exercise, and this limit is ordinarily increased at each subsequent visit. The speaker said that he had succeeded by this

method of muscular development in curing cases of lateral curvature in which bony and ligamentous changes were present, with marked rotation. The heavier the weight put above the head, the greater the temporary reduction of the deformity, and the frequent repetition of the upward and downward movements tend very markedly to increase the development of the chest. Out of 21 cases of lateral curvature that he had treated by this method, 19 were curved and 2 were very much improved at the time the treatment was discontinued. Most patients could stand with advantage three treatments a week, and in the milder cases improvement was quite noticeable within two weeks. The increase in the person's height was often quite rapid, and an existing flat-foot would be made shorter through shortening of the inner arch. The advantages claimed for the method were: (1) Rapid improvement in the general health and in the muscular system; (2) marked increase in the lung capacity; (3) diminished frequency of the heart's action and increase in the pulse-pressure; (4) a continued improvement, both in the general health and in the condition of the muscular system for a long time after active treatment ceases.

A young man who had been under this treatment for stoop-shoulders was used to demonstrate the different exercises. At the beginning his pulse was 60, and the radial pulse-pressure 165 mm. of mercury. The exercises were done rapidly and without the usual rests between them. After the completion of these exercises, and a rest of about half an hour, the pulse was 96 and the pulse-pressure 210 mm. of mercury.

Dr. S. KETCH, of New York, said that he was not yet convinced that it was necessary to subject a child or adolescent to such severe exercises in order to effect improvement or cure of a lateral curvature. The only proper test of benefit or cure was the amelioration or removal of the element of rotation. Our object should be to secure by exercises an increased lateral flexibility of the spinal column. His own experience was directly opposed to Dr. TESCHNER's statement that this element could be improved in a very short time. A combination of the milder gymnastic exercises with the use of retentive apparatus seemed to him to constitute the best method of treatment.

Dr. JOHN RIDLON, of Chicago, said that he had tried Dr. TESCHNER's method in one case, that of a rather delicate girl of 16, who had been having milder exercises for about six months previously. Even by a very gradual increase in the daily heavy exercises he had not been able to get her to put up more than a 5-lb. dumb-bell, and that for only five times at most. The treatment was persevered in for four or five weeks, but as no improvement was noted, it had been then entirely abandoned. Theoretically, he saw no reason why these heavy exercises should be more potent in increasing the lateral flexibility of the spine than the milder ones; he would expect it to be the reverse. The speaker then proceeded to criticise the photographs presented in connection with the paper, both as regards the seeming tendency to place the patient in the worst possible position for the first photograph, and in the best possible position for the photograph taken after the treatment, and the omission of photographs of cured cases.

Dr. R. H. SAYRE said that he could not agree with Dr. WEIGEL that the development of one set of muscles necessarily meant a lack of development of other muscles. Development of muscular power was only one of the means at our command for the

correction of any individual case. He could not agree with Dr. TESCHNER that supporting apparatus should be abandoned. In view of the fact that there were no recorded cases of cures of lateral curvature associated with bony distortion, he thought it very unfortunate that no photographs had been exhibited of the 19 cases claimed to have been cured. These heavy exercises should be capable of increasing the general muscular development, but they were not without danger in frail children, and he believed that there were safer and equally efficient methods of treatment. The statement that the patients continued to improve after the cessation of the exercises was certainly at variance with general principles.

Dr. A. J. STEELE, of St. Louis, said that he was convinced that the method was of some value, and his proposition to test its capabilities—the selection of four judges to separately examine an adult patient both before and after the treatment—was certainly a fair one.

Dr. HARRY M. SHERMAN, of San Francisco, said that all would agree with Dr. WEIGEL that the superincumbent weight was the chief etiological factor, but the question was, Why should there be a bone in the body which was abnormally weak? He also felt disposed to criticise the incompleteness of Dr. TESCHNER's records, and also the fact that the only proof of improvement or cure offered was the tracings and photographs. It would at first sight seem that the taking of the tracings by different men was a safeguard against bias and error, but second thought would show that this in itself introduced another element of error—the personal equation of these men. He considered the use of mirrors as a guide to the proper performance of the exercises a valuable addition.

Dr. A. E. HOADLEY, of Chicago, said that the intervertebral disks represented one-fourth of the spinal column, and when these disks were deficient in "cellular tension"—in other words, were debilitated—they would become depressed, as shown by a reduction in the person's stature. He had known this to amount to as much as $1\frac{1}{2}$ inches between the time of rising in the morning and going to bed at night. This certainly meant a relaxation of the ligaments of the spinal column, thus allowing a certain amount of rotation. He had found that in perfectly healthy individuals the decrease in stature in the day was not more than one-fourth of an inch, and that when the shortening exceeded half an inch, deformity was invited. He believed that the rapid development of muscular tonicity would interfere with the correction of the deformity, and in many cases would make it impossible.

Dr. W. E. WIRT, of Cleveland, agreed with Dr. TESCHNER that these heavy exercises tended to increase the flexibility of the spine.

Dr. HANNA, of Oberlin College, said that she had been accustomed to treat lateral curvature in young girls by mild gymnastic exercises, massage, and the use of the hot and cold douche. Three months were ordinarily required to bring up to a proper standard the muscular system of a person deficient in muscular power.

Dr. WEIGEL said that the question of mechanical support was one of individual opinion and preference. Personally, he did not believe their disadvantages were as great as had been claimed. He found it hard to believe that the muscles grew strong as quickly as one would infer from Dr. TESCHNER's statements.

Dr. TESCHNER, in closing the discussion, said that he had not taken photographs of all his cases,

for he did not think they were of any value in the cases of mild postural scoliosis. In having the various patients photographed, he had not attempted to place them in any special position, but had merely told them to stand before the screen and be photographed. One of the photographs that had been especially criticised was that of a person who had been utterly unable to stand in such a good position before the treatment. He had asked Drs. WHITMAN, GIBNEY, KETCH, and JUDSON to act as the four judges in the test case already referred to.

Spontaneous Dislocation of the Hip.—Dr. WILLIAM J. TAYLOR, of Philadelphia, reported the case of a man, first seen by him when 21 years of age. When 5 years old he had fallen, but no injury to the hip had been detected at the time, and he had run around as usual. The first sign of any trouble with the hip had been noticed about six months after this. Careful examination by the speaker disclosed a typical dislocation of the head of the femur on the dorsum of the ilium, without evidence of inflammatory changes. Apparently the fall had caused an effusion into the joint, causing a distention of the capsule, and thus giving an opportunity for the occurrence of the dislocation. With the aid of a high shoe the man was able to walk with considerable comfort. As the dislocation had existed for nearly fifteen years prior to coming under observation, no attempt was made to reduce it.

Similar cases were cited by Drs. R. H. SAYRE, GOLDTHWAIT, RIDLON, and MCKENZIE.

Dr. TAYLOR, in closing, said that as there had been no lameness or limp of any sort for six months after the fall, it seemed almost certain that the dislocation did not occur at the time of the accident.

The Anterior Transverse Arch of the Foot.—

Dr. JOEL E. GOLDTHWAIT, of Boston, presented a paper with this title. He said that most of his cases could be embraced in one of two groups, viz.: (1) Those in which there was relaxation of the longitudinal arch, and an abnormal relaxation of the whole front of the foot; and (2) those of the rigid type, with bony change—probably a late stage of the relaxed type. The patients, he said, suggest the diagnosis by stating that they have been compelled to wear wider shoes, and that they have experienced discomfort or paroxysmal pain in the front part of the foot. There would be found, in addition, a callus under the head of the second, third, and fourth metatarsal bones. The rigid cases appeared to be due, very largely, to a continued malposition of the front of the foot, causing bony change. It seemed to him that improper shoes were responsible for most of these cases. In the treatment of the relaxed cases the most important point was the strengthening of the front part of the foot by all sorts of balancing exercises, done with the feet bare, and by special exercise of the individual toes, to develop the muscles there. The strain on the ligaments and muscles was best relieved by the application of a snugly fitting bandage about the foot, just behind the head of the first metatarsal bone. Relief would also be experienced from a felt pad so applied as to make pressure just back of the heads of the second and third metatarsal bones. The speaker said that since he had begun this treatment he had not had to operate on a single case.

Dr. KETCH cited a case in which gout seemed to be the chief etiological factor.

Dr. E. H. BRADFORD, of Boston, said that the most efficacious appliance for the treatment of these cases was the flat-foot plate of Dr. WHITMAN, so modified as to make pressure on and raise the head of the metatarsal bone. All the cases of true meta-

tarsalgia that he had seen had been associated with a depression of one particular bone—the fourth metatarsal bone.

Dr. J. E. MOORE, of Minneapolis, said that this affection was especially common among nurses, and it yielded readily to the use of proper shoes, together with the proper application of pressure, as already described.

Dr. KERR, of Washington, D. C., said that he had been accustomed to treat true metatarsalgia by excision of the head of the fourth metatarsal bone, and sometimes of the nerve also.

The President remarked that a shoe could not be considered to be properly constructed if the toes were made to point up in the air, as was usually the case. They should be directed horizontally.

Skiagraphs.—Dr. GOLDTHWAIT then exhibited several Röntgen-ray pictures: a baby's finger showing absence of ossification in the metacarpal bones and in the phalanges; also supernumerary toes. The picture had been taken with a view to determining which was really the supernumerary toe, as he felt sure that in one case he had removed the wrong digit.

Dr. WILLIAM J. TAYLOR presented for Dr. DE FOREST WILLARD, of Philadelphia, a series of Röntgen-ray skiagraphs. The first picture was of a pair of club-feet from a case of untreated talipes equinovarus in a boy of 6 years, and it was especially valuable in demonstrating that the width of the astragalus, even in its deformed head, was less than the diameter of the mortise between the two malleoli. It was decided, therefore, that the bone could be placed back in its normal position without tarsectomy. The skiagraph of the left foot revealed an actual dislocation in the second, third, and fourth metatarsals, and a faulty articulation of the first metatarsal with the internal cuneiform.

The next skiagraph was of the arm of a boy of 3 years, who possessed, instead of the phalanges, only five little protuberances at the end of the metacarpus. The picture showed that while the bones of the arm were clearly defined, the hand consisted only of cartilaginous pieces.

The next picture was of an old tubercular knee-joint in a patient 38 years of age. The skiagraph was taken in order to decide whether it was safe to institute forcible movement of the joint. The picture showed so little bony deposit, and the outlines of the condyles and of the tibia were so sharply defined, that it was decided to make the attempt to cautiously move the joint. The limb was straightened under ether without exciting inflammation.

A second skiagraph of a knee was shown. It was from a man 20 years of age, who had suffered from a slow inflammatory tubercular condition for over ten years. The picture showed extensive erosion of the sides of the condyle of the femur, with destruction of bone and a partial dislocation backward of the head of the femur.

President's Address.—“The Definition and Scope of Orthopedic Surgery.”—The President, Dr. ROYAL WHITMAN, of New York, in beginning his address, called attention to the fact that although the term *orthopédie* was invented by ANDRY, 150 years ago, yet the treatment of deformity, in a limited sense, and by the use of apparatus, was much more ancient. The use of apparatus was hardly mentioned by ANDRY, yet the name had later been applied to the ancient practice of mechanical treatment; and to the present day the influence of the old tradition was still evident in the popular belief that the use of a brace, rather than the effective treatment of weakness and disease, was the dis-

tinctive quality of the specialty. Orthopedic surgery in this country had developed, it would seem, from a new standpoint, in that the treatment of the painful, dangerous deforming diseases of the joints had long been considered its most important function. Orthopedic surgery, therefore, should be defined from the standpoint of its development in this country, and by the actual work of this association. The speaker then offered the following definition: “Orthopedic surgery is that division of surgery which treats of disabilities and diseases of the locomotive apparatus, and of the prevention and treatment of deformities of the framework of the body.” Such a definition indicated that orthopedic surgery had especially to do with the structure of the human machine, with those deformities that affect the framework of this machine, those diseases of the bones and joints that lead to the distortion of the machine, and those disabilities that especially concern the functional use of the machine. In conclusion, he said that the field of modern orthopedic surgery was a broad one, and its boundaries were less defined than those of other specialties, but this was rather an advantage than a disadvantage, since by more frequent contact with workers in other fields the danger of contracted vision, that had been urged against special work, might the more easily be avoided.

Investigations on Flat-foot.—Dr. E. H. BRADFORD presented a series of lantern slides to illustrate the causation and development of flat-foot. These photographs were selected to demonstrate the fact that bare-footed people had strong and well-arched feet, and that bad shoeing was largely the cause of this affection.

After some discussion on the “high arch” or the contracted foot, the association adjourned until the following day.

AMERICAN PEDIATRIC ASSOCIATION

EIGHTH ANNUAL MEETING

Montreal, Canada, May 25, 26, and 27, 1896

[Special Report to the BULLETIN]

FIRST DAY—MORNING SESSION

In the absence of the president, Dr. JOSEPH O'DWYER, the meeting was called to order by Dr. J. C. WILSON, vice-president.

President's Address.—Dr. O'DWYER's presidential address, “The Evolution of Intubation,” was read by Dr. W. P. NORTHRUP. In this paper the fact was brought out that the evolution of intubation was no borrowed or sudden inspiration, but the result of persistent, systematic thought.

Failure with tracheotomy was the chief incentive to the work. The early experiments in the line which ultimately led to the perfected and accurate method of intubation were crude. Catheters passed through the nose and into the larynx were first used. The question of most moment to be solved was, How could a tube be constructed and maintained in the larynx without injury to the tissues? The tubes first made were *bivalve* and were well retained in the larynx. Three years later they were discarded as useless. The next tube constructed was one of plain oval form with an opening for introducing an extractor.

The question of injury to the vocal cords became now a matter of anxiety and concern, until in the first case of croup which recovered after intubation the voice was regained four weeks after the tubing.

Longer tubes and a better extractor were now

devised. At this stage of development the tubes were provided with a second shoulder (to prevent expulsion of the tube) and were subsequently modified by having the retaining swell in the middle of the tube. The head of the tube was also increased in size, and the lower end rounded off. The difficulty in swallowing, after intubation, was not overcome by attaching an artificial epiglottis to the tube.

To overcome to a greater extent the tendency to clogging of the distal end of tube by membrane, tubes of larger caliber, of shorter length, and more cylindrical were invented. In 1885 Adner tubes were constructed, and subsequently a laryngeal snare for the removal of subglottic growths; also special tubes, the "Tell-O'Dwyer" apparatus for the purpose of artificial respiration.

Tapping the Vertebral Canal.—Local Treatment of Tubercular Meningitis. — This paper was presented by Dr. AUGUSTUS CAILLÉ. QUINCKE's discovery in 1872 of a free communication between the subarachnoid space of the brain and that of the spinal cord was mentioned. Also, the possibility of diffusing colored liquids through the brain and spine, which fact had been established more than 25 years ago.

The author of the paper drew attention to the fact that no further experiments had been made in the direction of their practical application until the original experimenter, QUINCKE, in 1891, drew attention to the possibility of tapping the spinal canal in the lumbar region. CAILLÉ ascribed the tardiness in establishing local treatment for affections of the central nervous system to the difference in pathological conception of to-day as compared with that of a quarter of a century ago.

The labors of PASTEUR, LISTER, KOCH, and BEHRING have furnished us the real key to hitherto mysterious biological and pathological phenomena, and give stimulus and inducement to-day for direct local treatment.

The author then presented a tabulated list of cases showing the condition of the cerebro-spinal fluid in various affections. In the majority of cases the fluid withdrawn was examined for sugar, albumin, and bacteria. The clinical diagnosis established thereby was verified by autopsy in every case where autopsy was obtainable, thus establishing the procedure of greatest value in arriving at positive diagnosis.

In instances of tubercular meningitis thorough washing of the subarachnoid space is necessary to make an impression on such cases, and the author proposes at the next opportunity to lay bare the dura by removing a button of bone by trephine and irrigating the subarachnoid space from the seat of lumbar puncture upward, the fluid escaping through an opening in the dura. Irrigation by the shorter route through the lateral ventricles will probably not reach the convexity and hence is inadequate.

Superficial Gangrene, by Dr. B. K. RACHFORD, was read by title.

A Case of Gangrene of the Lung complicating typhoid fever was reported by Dr. G. N. ACKER. Both lungs were gangrenous and the intestines presented typical lesions of typhoid fever.

Malignant Endocarditis, with specimen, by Dr. J. H. FRUITNIGHT.—The patient was a girl of 11 years of age. Had an attack of acute rheumatism two years ago. When first seen she had vomiting, high fever, and was somnolent. There existed at the time no cardiac murmur, but the impulse was feeble. Over various portions of the body hemorrhagic petechiæ existed. Later the patient went into delirium and coma. Death ensued.

Autopsy revealed subserous pericardial hemorrhage and vegetations about the valves of the heart. Microscopic examination showed staphylococcus pyogenes aureus. Dr. FRUITNIGHT recommends for treatment staphylococcus antitoxin.

Papilloma of the Larynx in an Infant aged one Year. By Dr. I. M. SNOW.—This paper was read by title.

AMERICAN GYNECOLOGICAL SOCIETY TWENTY-FIRST ANNUAL MEETING

Held in New York, May 26, 27, and 28, 1896

WILLIAM M. POLK, M.D., of New York, President

[Special report to the BULLETIN]

FIRST DAY

In the address of welcome, Dr. W. T. LUSK gave a historical sketch of the society and its work, and closed with a plea for conservative surgery in gynecology.

Dr. PAUL SEGOND was then presented to the society and extended the privilege of the floor.

Virginal and Senile Endometritis.—Dr. PAUL F. MUNDÉ, of New York, presented a paper on this subject. He said that he had met with a number of cases in which there had been chronic catarrhal inflammation of the virgin uterus, and even such marked eversion of the cervical lips as to give the appearance of an ordinary puerperal laceration of the cervix. While, of course, the rule was that the gynecologist should not hastily resort to local interference in young virgins, there was sometimes a tendency to carry this rule too far, and so bring needless suffering and disease upon the patient. He recalled several cases illustrative of this, and showed how in suitable cases simple local measures would bring speedy and complete relief. In the cases under discussion there was usually more or less muco-purulent vaginal discharge, and sometimes menorrhagia, but a correct diagnosis could only be made by a specular as well as a digital examination. In most instances the excision of the hypertrophic mucous membrane and curetting of the endometrium would effect a cure. It was not uncommon for women who had passed the change of life to have a muco-serous and pungent discharge from the cervix, due to a senile endometritis. The discharge soon caused erosions, which were best treated by the local application of solution of nitrate of silver—half a drachm to a drachm to the ounce. Sometimes the discharge was sanguineous, and then a positive differential diagnosis between endometritis and malignant disease could only be made by microscopical examination. In none of the cases coming under the scope of the paper had he felt that a severe operation like vaginal hysterectomy was indicated.

Dr. PENROSE said that he had reported a case in which there was a congenital split, five-eighths of an inch long, in the cervical canal of a newly born infant, without any evidence of inflammation of the cervical canal.

Dr. A. LAPHORN SMITH, of Montreal, said that he believed that the dysmenorrhea and menorrhagia from which many young girls suffered was due to endometritis, and in his opinion the chief causes leading to this condition were tight corsets, exposure of the feet to wet and cold, and also chronic constipation.

Dr. MATTHEW D. MANN, of Buffalo, said that in his address before the society last year he had directed attention to the fact that underlying a virginal or senile endometritis there was frequently a condition of malnutrition, spoken of in a general way as

"lithemia." If the physician failed to recognize this condition, and instituted appropriate constitutional treatment, he would find that these cases would almost invariably relapse.

Dr. CHAUNCEY D. PALMER, of Cincinnati, said that he too had seen several cases of vaginal endometritis, in which, notwithstanding the presence of all the usual signs of virginity, the eversion of the cervical lips closely resembled the condition found in puerperal laceration of the cervix. Relief had been afforded in these cases by trachelo-plastic operations.

Dr. HOWARD A. KELLY, of Baltimore, said that he had never seen a case of endometritis in a person who was undoubtedly a virgin, and who had not been subjected to previous local instrumentation. In the senile cases he had usually found the inflammation limited to the cervical mucosa.

Dr. W. T. LUSK said that in young virgins suffering from backache, dysmenorrhea, and menorrhagia, examination under chloroform would usually disclose an extremely small os internum and erosion and partial closure of the os externum. As a result of this, there would be slight dilatation of the uterine cavity. It was only necessary to thoroughly dilate the os externum to allow of the escape of the retained secretion, and so relieve the symptoms from which the patient suffered.

Dr. JOHNSON, of Washington, D. C., referred to the importance of knowing that there might be these lacerations or clefts in the lips of the cervix irrespective of parturition, and that they did not necessarily indicate that there had been any lapse of virtue.

Liability to Prosecution for Damages in Abdominal Surgery.—Dr. CYRUS A. KIRKLEY, of Toledo, O., read a paper with this title, in which after calling attention to the grave responsibilities assumed by the abdominal surgeon, and the urgent need for reform in our present method of taking expert testimony, he commended a plan, now in operation in some parts of England, by which the medical men called by both sides are allowed an opportunity to confer with one another before testifying in court. He suggested the appointment by the court of a medical commission to hear and determine the medical questions involved in a given case, and expressed the opinion that by this method many of the annoyances and abuses of the present system would be avoided and the ends of justice furthered.

Dr. H. A. KELLY said that he had found the following rules valuable for the guidance and protection of the surgeon: (1) Keep a written record of the cases and subsequent visits, with careful notes, not only of the first examination, but of the symptoms complained of; (2) a note should be made of the proposed line of treatment and what the surgeon promises the patient to accomplish by it; (3) state clearly to the patient the risks of abdominal operations, as shown by statistics; and (4) keep very careful notes of the period of convalescence.

Dr. EDWARD P. DAVIS, of Philadelphia, said that the courts of Pennsylvania had decided that in a suit for civil damages two physicians should examine the plaintiff—one physician selected by each party to the suit.

Gynecology and General Medicine: Their Reciprocal Relations.—Dr. CHAUNCEY D. PALMER, of Cincinnati, in a paper with this title, discussed the manifold relations of gynecology to general medicine in the effort to show that there was scarcely a disease of the general system which did not affect the circulation, innervation, and functions of the pelvic

organs. He said that many chronic diseases of the uterus were chronic only by reason of some diathetic taint or depression of the general health. It was evident, therefore, that the old practice of employing local treatment, to the exclusion of all else, was both foolish and pernicious.

Dr. FORD, of Utica, spoke in the same strain, and emphasized his remarks by citing a case in which medicine and surgery had, by joining their forces, succeeded in securing in a desperate case an unexpectedly good result.

Dr. S. C. GORDON, of Portland, Me., said that in cases of vaginal endometritis, for example, there was often an associated anemia which would not yield to medicines until after the endometritis had been treated surgically. After this had been accomplished, the full benefit would not be obtained until the patient had received proper constitutional treatment. This well illustrated the interdependence of gynecology and general medicine.

The Clinical Importance of the Menstrual Wave.—Dr. ARTHUR JOHNSTONE, of Cincinnati, presented a paper on this subject. He expressed himself as a thorough believer in "the Stephenson wave," and in the far-reaching therapeutic possibilities flowing from a proper appreciation of the relations of this menstrual wave, not only to gynecology, but to general medicine. He believed that in the trough of the wave, the pelvic organs became anemic and shrunken, and that this caused a mechanical stretching of nerve filaments, and, therefore, pain. He did not think one should operate just before a menstrual period, except where there was some special urgency. There was not a functioning organ in the body, he said, that was not liable to become deranged if the menstrual wave was disturbed. Many sins against the ovary would be avoided by proper attention to the menstrual wave.

Epilepsies, and mental derangements of all kinds, having a periodicity, should be most carefully studied in women with reference to their relation to the menstrual wave. In the Toledo Asylum it had been found that only about five per cent. of the female lunatics were insane from pelvic causes.

Dr. A. J. C. SKENE, of Brooklyn, said that he could not accept Dr. PALMER's statement regarding the greater liability of women to disease because of their delicate organization, because it was an undoubted fact that they were exempt from many of the nervous organic diseases to which males are subject. Not long ago it had been believed that many cases of epilepsy could be cured by the removal of ovaries obviously pathological; now, the neurologists assert that they do not believe a case of true epilepsy has ever been cured by any operation on any organ of the body. He had found STEPHENSON's ideas about the menstrual wave by far the most valuable guide in his clinical work.

Dr. ENGELMANN, of St. Louis, said, regarding the relief of various nervous conditions in women, that his experience had been that such conditions were more under the control of the uterus than of the ovaries.

Dr. PALMER said that he would take exception to only one part of Dr. JOHNSTONE's paper—in regard to the causation of intermenstrual pain. His own belief was that it was due to ovulation occurring in an ovary whose cortex had become pathologically thickened.

Dr. JOHNSTONE said that, as only about five ovules appeared to ripen in the course of a year, he could not understand this explanation of intermenstrual pain, nor had he ever seen a case of intermenstrual

pain relieved until the menopause had been established.

Aids in Obstetric Teaching.—Dr. J. CLIFTON EDGAR, of New York, in a paper on this subject, stated his belief that there was need for better appliances to *supplement* the all-important clinical teaching of obstetrics. Paper, clay, and composition models were particularly useful for this purpose. Paper models, for example, might be used to show the height and shape of the fundus and lower uterine segment, the placental insertion, the physiology and pathology of pregnancy, the curve of the parturient canal, and mesial sections of the uterus. Plaster models are usually too heavy and fragile for use in teaching, but, by electroplating plaster casts with copper, they could be made very strong, and could be easily kept clean. The composition models used by Dr. EDGAR were made of a cheap substitute for rubber—a composition possessing the elasticity and many of the other properties of rubber. The composition is made up of Cooper's A1 glue and glycerin, the proportions depending upon the degree of flexibility desired. In case these models shrink and become hard, they may be remelted and fresh glue added. They have been found useful for reproducing the lower uterine segment, and showing the mechanism of dilatation with gradual disappearance of the supra-vaginal part of the cervix, and for demonstrating the dangers of ordinary digital and manual dilatation, of breech extraction through an imperfectly dilated os, and of incomplete extension of the head. Dr. EDGAR said that he had found very useful for purposes of instruction, metal and leather models, particularly a vertical mesial section of the bony pelvis in aluminum. Chamois-leather models of puerperal uteri were also useful in many ways.

Dr. A. H. BUCKMASTER said that he had found paraffin very useful for such modeling.

Dr. E. P. DAVIS suggested that when it became possible to take skiagraphs of the human body with the Röntgen rays with a very quick exposure, this would furnish another valuable addition to the appliances for improving the teaching of obstetrics.

Dr. R. A. MURRAY, of New York, said that as in this country we rarely saw anything but relative deformity of the pelvis, the models of the different forms of deformed pelvis offered to students here the only means of becoming familiar with these varieties.

Dr. KING, of Washington, D. C., hoped Dr. EDGAR would persevere in this good work, and would place in the hands of students a model by which they could at their homes perfect themselves in vaginal touch.

Dr. E. P. REYNOLDS, of Boston, suggested that an effort be made to illustrate by such models the whole mechanism of labor.

Two Cases of Pregnancy Following Removal of Both Tubes and Ovaries.—Dr. S. C. GORDON, of Portland, Me., reported two cases, and also one of a tubal pregnancy, becoming subsequently an abdominal pregnancy.

Effect of Complete Hysterectomy Upon the Vagina.—Dr. GORDON also presented a brief communication on this subject, in which he stated that although he had examined many cases after hysterectomy, he had not found any shortening of the vagina, except in two or three instances in which the cervix had not been removed. By his technique the broad ligaments were drawn up as soon as cut, by a continuous suture, and after the completion of the operation the vagina was elevated above the normal position and closed by the same suture, continued

from the broad ligament. This actually lengthened the vagina.

Cases of Double Ovariectomy, Followed by Pregnancy and Delivery at Term.—Dr. R. STANSBURY SUTTON, of Pittsburg, made such a report.

Drs. A. LAPHORN SMITH, ERNEST CUSHING, and ENGELMANN also reported similar cases.

Dr. A. PALMER DUDLEY, of New York, said that he now had the records of six cases in which he had done conservative surgery on the tubes and ovaries, and pregnancy had occurred subsequently. Three of these patients had already been delivered of living children, and the other three were now pregnant.

Dr. ARTHUR JOHNSTONE said that the subsequent occurrence of pregnancy after the removal of tubes and ovaries might be explained by the existence of "a third ovary," and also of multiple openings in the tubes—a not uncommon condition.

CORRESPONDENCE

(From the BULLETIN's Special Correspondents)

CANADA LETTER

LONDON, Ont., May 18, 1896.

LONDON MEDICAL ASSOCIATION.—The regular monthly meeting of this society was held at the Western University Medical Building on May 11. Dr. GRAHAM, in the absence of the president, occupied the chair.

Dr. HODGE reported a case of "Myxedema Treated with Desiccated Thyroids" (see p. 724 of this issue). The patient answered readily and intelligently a number of questions asked by members present. Her expression was cheerful and her manner sprightly—quite the opposite of the morose and apathetic temperament characteristic of her before treatment. The new growth of hair, two or three inches in length, soft and glossy, was in striking contrast with the dry and crisp patches of old hair still visible in a few spots on the head. A flexible rosy skin had taken the place of the rough furfuraceous skin described in Dr. HODGE's paper. The patient stated that in two weeks, while under treatment, she had lost in actual weight 10 lb.

Dr. ECCLES asked the writer of the paper if he could give any explanation of the absence of perspiration in myxedema.

Dr. STEVENSON knew of a case of exophthalmic goiter in the practice of Dr. NIVEN, of this city, recently treated with desiccated thyroid. Not only was the gland reduced in size, but the general condition of the patient was improved.

Dr. ENGLISH had treated four cases of ordinary goiter with thyroids; three of them were cases of from 2 to 4 years' standing. The improvement in those cases was slow, but satisfactory.

The fourth was an acute case in which in less than two weeks the thyroid treatment effected a reduction in the anterior measurement of the gland of one inch.

Dr. MOORE had treated two cases of exophthalmic goiter with thyroid. He found the continued use of the remedy accompanied by an increasing toleration of thyroids. To get the best result, he found it necessary to push the treatment to the bounds of safety.

Dr. FERGUSON asked Dr. HODGE if he had any explanation to offer for the apparently equally favorable results obtained from the use of thyroids in such pathologically opposite diseases as myxedema and goiter. The former he understood to be

a condition of retarded or impaired function, with consequent atrophy of the thyroid gland; while goiter was a condition of abnormal excitation of the gland, with consequent hypertrophy. If this was a correct view of the pathology and morbid anatomy of the thyroid gland in these diseases, it appeared to him that they should be treated on diametrically opposite principles.

Dr. HODGE, in closing the discussion, said, in reply to Dr. ECCLES, that he could give no clear reason for the dryness of the skin in myxedema. On general principles the condition would indicate an impaired nutrition of the skin, due it might be in this case to some abnormality or disturbance of the vaso-motor system. He had found the same difficulty as Dr. FERGUSON in reconciling the treatment of divergent conditions of the same gland by the same remedial agent, but while unable to give any explanation of the rationale of the treatment, he thought experience had proved that thyroid-feeding was beneficial alike in myxedema and goiter.

Dr. F. R. ECCLES read a paper on "Tachycardia." In general it is due to a disturbance of the harmony of action of the two nervous systems which preside over and regulate the action of the heart. By tachycardia one does not mean the great frequency of the pulse, which we find in the last stages of exhausting diseases, in profound cases of anemia, and in the last stages of collapse. In the cases cited by the writer there was in one chronic rheumatism, in another cancer, and in another myoma. The tachycardia in all was paroxysmal, and came on without any special warning.

CASE I.—Mrs. F., aged 52, first seen in April, 1891, found a large swelling in the region of the hyoid bone, and extending an inch below it. The swelling freely moved with the larynx in swallowing. April 10, 4 p.m., she had an attack of great heaving of the chest, with palpitation and great frequency of the heart's action. Pulse-rate, 280. She did not appear to be distressed. I gave her 6 dr. infusion digitalis and 2 dr. of whisky. In 15 minutes the heart was down to 135. She said she had been subject to these attacks for years, although the swelling did not begin to appear until nine months before I saw her. She died on the 28th of April, the post-mortem revealing cancer of the esophagus communicating with the larynx.

CASE II.—Mrs. W., aged 49, troubled with myoma and menorrhagia since 1888. In March, 1892, was taken suddenly with distress and heaving of the chest. Pulse, 120, ran up to 140. Put her on strychnia and digitalis. Up to March, 1894, had recurring attacks of tachycardia, and a pulse seldom below 80 and 90. March 8, 1894, pulse 100 to 140; February 8, 1895, 116 to 120. Has been fairly well since April of this year. May 9, 1896, pulse regular and less frequent.

CASE III.—Mrs. R., aged 46. Never had any serious disease, bronchitis only for two weeks, and palpitation ever since she came to womanhood, with symptoms of endometritis. Last fall swelling of the right knee came on and hydrops articuli continued for some time. She is now able to walk with crutches, and general health much improved. On May 1, 1896, at 10.30 p.m., without any exciting cause, and while in bed, an attack of tachycardia came on. It continued all night and until 11 a.m. of the next day. It then left her for 30 minutes, returned again until 4 p.m., when it again left her until 8.30 p.m. It continued all day and all night of the 3d. At 4 p.m. of that day I saw her in consultation. The attending physician said he several times counted the pulse at 200 and 220. This

was also the rate when I saw her. Heart sedatives had been already employed. We gave her a hypodermic of morphia, but there was not much change in the pulse frequency until the morning of the 4th, when the attack passed off and the pulse became normal, and has continued so since.

In the treatment of these cases, digitalis was more or less used in all. In all three cases the attacks may be said to have been functional, using that term in the sense that no organic lesion had been found to be the direct exciting cause of the attacks. The patients were all more or less neurotic, with the probable exception of the cancer case. The sources of disturbance, if understood, would probably be found in the medulla oblongata, if the old theory of this center presiding over the cardiac vascular equilibrium is correct.

Dr. HODGE thought that in the cancer case the rapidity of the heart might have been caused by an attack due to peripheral irritation from pressure of the tumor upon the vagus. In the second case, the frequent attacks may have been induced by the collapse incidental to repeated hemorrhages. He could see no probable cause for the attack in the third case. Dr. FERGUSON referred to a case of constant or habitual tachycardia in a patient whose pulse he never found below 96 and 100, although the person was in apparently perfect health, and not even neurotic. This appeared to him more strange than paroxysmal tachycardia, when the patient was in an abnormal condition, and the attack secondary to some exciting, though not always known, cause.

Dr. ECCLES, in reply, said that Dr. HODGE's theory of peripheral irritation would not apply in the cancer case, as the patient was subject to the attacks for years before the possibility of the existence of the cancer. He also thought that a pulse of 200 and 220 without other constitutional disturbances, even if paroxysmal, was quite as remarkable as a pulse constantly running at only one-half that rate.

The meeting then adjourned, to meet on the 8th of June.

MEETING OF THE ONTARIO MEDICAL ASSOCIATION.—An attendance of five or six hundred physicians is expected at the Ontario Medical Association, which meets at Windsor (opposite Detroit), June 3 and 4. The association has a membership of 1000. The following is a partial list of papers and discussions already promised:

Discussion in Medicine—"Treatment of Phthisis," W. J. GEIKIE, Toronto; GEO. HODGE, London; V. H. MOORE, Brockville.

Discussion in Surgery—"The Operative Treatment of Carcinoma," W. BURT, Paris; A. B. WELFORD, Woodstock; G. T. McKEOUGH, Chatham.

Discussion in Obstetrics—"Treatment of Puerperal Sepsis," H. T. MACHELL, Toronto; G. ACHESON, Galt; H. MEEK, London.

Papers—"Occipito-Posterior Presentations," A. A. MACDONALD, Toronto; "Diphtheria," C. R. CHARTERIS, Chatham; "The Rational Treatment of Typhoid Fever," J. P. ARMOUR, St. Catharines; "The Differential Diagnosis of Typhoid Fever," G. R. CRUIKSHANKS, Windsor; "Abortion," F. R. ECCLES, London; "Anesthesia," C. SCADDING, Toronto; "Skin-grafting" (patient to be presented), R. WHITEMAN, Shakespeare; "The Total Stamping-out of Transmittable Diseases," A. GROVES, Fergus; "Mitral Diseases in Pregnancy," C. J. O. HASTINGS, Toronto; "The Röntgen Rays in Surgery," E. E. KING and N. A. POWELL, Toronto. Dr. VICTOR VAUGHAN, of Ann Arbor, and Drs. T. MCGRAW and D. MACLEAN, of Detroit, have accepted invitations to be present.

EXCISION OF THE MEMBRANA TYMPANI AND MALLEUS.—Chronic purulent disease is met with so frequently in ordinary practice that the following case will not be without interest to the general practitioner. I obtained these notes from Dr. BUTLER, of London, in whose practice the case oc-

curred and by whom it was treated. Miss M., age 19 years, family history good. Had a gathering in her left ear during an attack of scarlet fever when two years of age. Hearing fully restored, but since that time she has been subject to occasional ear-ache. During Dec. 1885, several members of her family suffered from diphtheria, and she also had a mild throat trouble. The left ear gathered and an offensive discharge appeared, which has persisted at varying intervals ever since, with increasing dullness of hearing. Upon examination on January 18, 1896, a perforation of the membrana flaccida was found, blocked by granulation tissue, the upper part of the drumhead being covered by an offensive discharge. After removal of the granulation tissue by means of a bead of chromic acid, the neck of the malleus was exposed. Exploration of the attic failed to detect dead bone. The middle-ear syringe was used in cleansing the cavity with peroxide of hydrogen, followed by instillations of a 2½-per-cent. solution of carbolic acid. The left nasal passage was obstructed by septal hypertrophy, which was relieved by means of the electric cautery. The antiseptic treatment indicated was maintained for weeks, but the offensive discharge continued.

On April 8 the membrana tympani and malleus were excised. The incus could not be found, and no dead bone was found in the walls of the tympanum. The malleus was intact except some roughening of the articular surface of its head. The ear was dusted with iodoform and a tampon of cotton applied. On April 16, eight days after the operation, the discharge has materially lessened, the offensive odor has disappeared, and the hearing distance for the watch has increased from being occasionally heard on contact before the operation, to a distance of 1 inch. The giddiness which annoyed the patient before operation has ceased. Treatment by means of antiseptic instillations of a carbolic solution, and applications of boric-acid powder is still maintained. The patient returned to her home in the country two weeks ago.

(P.S., May 18.—I have just inquired of Dr. BUTLER by telephone as to the progress of this case. He tells me that the patient visited him to-day for the first time since her return home. She now hears the watch at a distance of 3 inches, and the discharge is very slight and lessening. Its continuance he attributes to a few granulations which he detected to-day on the under side of the canal. The attic, the seat of the original trouble, has undergone complete repair. The patient says she has not felt so well in years, and the Doctor is sanguine of most satisfactory results.)

THE MEDICAL CURRICULUM FOR ONTARIO.—The position taken by Principal GRANT, of Queen's University, Kingston, will probably prevent any change in the medical curriculum of the College of Physicians and Surgeons of Ontario. The medical schools of Toronto proposed a change which would give a four-years course with eight months of teaching in each, instead of four sessions of six months each, one summer session of three months, and a fifth year to be spent in practical work or scientific research. The supporters of Queen's College, Kingston, including Principal GRANT, are opposed to any change at present, and I understand the majority of the members of the council agree with them in thinking that a fair trial should be given to the present regulations.

WINDSOR WATER SUPPLY.—A meeting of the Windsor Board of Health was held on the 13th inst. The report of the Provincial Board on the water

supply was considered, and it was decided to extend the intake pipe 250 ft. farther into the Detroit river, which will make it 500 ft. long. It is hoped that this will settle the sewerage question. If it does not, further action will be taken.

A NATIONAL SANITARIUM.—The act incorporating the National Sanitarium Association having received the assent of the Governor-general, the trustees have appointed the following officers: President, Sir DONALD SMITH; vice-president, Chief Justice MEREDITH; secretary, Dr. U. A. POWELL, Toronto; treasurer, W. J. GAGE, Toronto.

DOMINION MEDICAL REGISTER.—The Bryant Press, Toronto, contemplates publishing, as soon as the necessary information can be obtained, the first issue of the *Dominion Medical Register*. The work will be published at intervals, as frequently perhaps as once a year, and is intended to be a complete repertory of interesting and useful biographical data concerning every member of the medical profession in Canada.

PERSONAL.—Dr. A. W. MOODY has been appointed medical superintendent of the Winnipeg General Hospital.

Dr. J. T. DUNCAN, of Toronto, has retired from general practice. He is going to Moorfields, London, to enter upon a protracted course of study in ophthalmology, a specialty to which he will confine himself on his return.

Dr. J. ALGERNON TEMPLE, professor of obstetrics and gynecology, Trinity Medical College, Toronto, sailed for England, May 13.

Dr. G. STERLING RYERSON, Toronto, arrived at Gibraltar, April 28, and started for London, Eng., where he had an important engagement May 11. He is the chief officer of the St. John Ambulance Association in Canada, and one of the objects of his trip is to consult with other officers of the association in Great Britain.

Dr. A. T. HOBBS, of the London Asylum for the Insane, has gone on a short visit to the New York hospitals.

SAN FRANCISCO LETTER

At the last regular meeting of the San Francisco County Medical Society, Dr. CLINTON CUSHING read a paper on "The Use of Pessaries in the Treatment of Backward Displacements of the Uterus," and Dr. W. H. MAYS exhibited some fibroid tumors. The meeting was well attended, and Dr. CUSHING's paper was ably discussed by several of the members of the society.

The final examinations of the Medical Department of the University of California, San Francisco, are over. Commencement exercises were held May 3 at the University of California, Berkeley. Governor BUDD, as well as a large number of the Alumni and many of the Regents, were present at the exercises. About half a hundred more new pill-peddlers received sheepskins.

Dr. D. E. CHANTREAU was recently elected and appointed attending physician, Dr. DE MARVILLE attending surgeon, and Dr. MAYER gynecologist to the French Hospital, San Francisco.

On Friday evening, May 15, a banquet was given in the Maple Hall, Palace Hotel, San Francisco, by the members of the Homeopathic Society in San Francisco, Oakland, and Alameda, to the visiting physicians at the Homeopathic convention held in San Francisco.

Dr. R. BEVERLY COLE, of San Francisco, attended

the Forty-seventh Annual Meeting of the American Medical Association, which was held at Atlanta, Ga. On Tuesday, May 5, Dr. COLE, as president of the association, called the meeting to order. In the address Dr. COLE said that 18 years ago, in the city of Atlanta, he was elected to the office of vice-president, and he looked upon it as an interesting coincidence that it should be his privilege to return to Atlanta to round up his official connection with the association. In his address Dr. COLE discussed some important professional questions. He stated that the tendency of medical men of to-day was to depreciate the dignity of their profession and bring it to a commercial level. He then referred to the cutting down of examiners' fees by the large life-insurance companies. "Surely the fee of five dollars was small enough, and the offer of any sum less is simply an insult to an educated physician. Let every examiner plant his feet and decline employment without adequate compensation and let it be published that certain companies employ incompetent men or, paying cut fees, receive cut services, and very soon will they be brought to realize that the best goods always command the best practices." Another question which the speaker brought up was that of reciprocity in medical practice between this and foreign countries. In looking over the medical registers of the various countries we learn that about three-quarters of those who do not remain at home come to America. In Germany the student who desires to emigrate may pass the required examination for the degree of Doctor of Medicine, a much less stringent examination than the "Staats Examen," the former conferring no rights and the latter being necessary to entitle the candidate to practice in the empire. Consequently the student may have passed the examination for degrees of doctor of medicine, comes to America and poses as a learned foreign doctor. Dr. COLE said, "I would have our people adopt high systems, through which foreigners coming here will be required to undergo a rigid examination before a national board of examiners, composed of heads of the medical bureaus of U. S. army and navy and of the bureau of medical education, which board would have its headquarters at Washington."

At the recent elections of attending physicians, etc. to the French Hospital Dr. G. GROSS was elected city physician by a majority of over 70 votes. The Election Board declared Dr. G. GROSS elected, but its president, M. WEILL, refused to receive the report. In all the elections heretofore blank ballots were dealt with as in parliamentary proceedings, but this year President WEILL did not follow the precedent of preceding years. The stand taken by M. WEILL has caused some confusion and excitement among the members of the Société. To test whether Dr. G. GROSS is entitled to his seat the matter was recently brought up before Judge SLACK and is to be heard in May. Meanwhile Dr. GROSS holds his seat as city physician to the French Hospital.

At the next meeting of the San Francisco County Medical Society Dr. W. S. THORNE will read a paper on "The Relation of the Red Blood-corpusele in Forensic Medicine," and Dr. BROWN will read a paper on "Hysterectomy for Fibroid Tumor with Pregnancy at Three Months."

The Twentieth Annual Meeting of the State Homeopathic Medical Society was held on May 13 to 15 at the Palace Hotel, San Francisco. The first session took place May 13. When the president, Dr. C. B. CURRIER, called the meeting to order Secretary MARTIN read the minutes; his report showed a membership of 98. The annual address

by President CURRIER was an interesting paper. At the morning session Dr. A. C. PETERSON, of San Francisco, read a paper on "Two Peculiar Cases of Throat Trouble," and Dr. W. E. LEDYARD read a paper on "Clinical Cases" which brought out discussion by Dr. J. T. MARTIN, of Woodland, and Dr. J. M. SELFRIDGE, of Oakland. In the afternoon under the head of "Obstetrics," Dr. J. T. MARTIN, of Woodland, read a paper on "Post-partum Hemorrhage and Retained Placenta"; Dr. S. J. FENTON, a paper on "Criminal Abortion"; Dr. B. W. STARK, of San Francisco, read a paper on "Sterility"; Dr. C. L. GOULD, a paper on "Antenatal Influence," which was discussed by Dr. SELFRIDGE, of Oakland, and Dr. T. PRATT, of San Jose.

EDITORS' NOTES

Audiet Alteram Partem.—*To the Editor of the A. M.-S. BULLETIN:* I have always admired the BULLETIN for its high character as a scientific medical journal, and, heretofore, also for its earnest support of the Code of Ethics of the American Medical Association. But I am exceedingly sorry to observe that the BULLETIN's attitude in regard to the latter has of late been completely changed, to judge from the tone of the editorial comments that have appeared in recent issues of the paper. In No. 20 of the BULLETIN, of May 16, in the editorial referring to the Atlanta meeting of the American Medical Association, there appears the following:

The Association failed to take any action on the code question, which seems to be dying an inglorious death, the result of premature decay and imbecility. According to our correspondent "old-coders and no-coders and new-coders" mingled freely together, irrespective of that bastard figment of the imagination still alive in the minds of certain of the present rulers of the Association. The comfort is that these men cannot live forever, or, if they do, cannot remain in power forever; and when they decay, after the one or the other fashion, the spirit of liberality, of charity, of true science, will prevail, and through the code of conscience, which guides every gentleman, the various types of coders will live under one common roof of Liberality and of Humanity.

The above expressions are unkind, ungenerous, not to say abusive, and particularly so that of "The comfort is that these men cannot live forever," etc.

I do not propose to discuss again the code question. My individual opinion has already been expressed in this journal (see the BULLETIN, December, 1893, and January, 1894), when this posed as a friend of the code. But I, like a very large number of the readers of your paper, I can assure you, am very much surprised at the sudden change of policy in the BULLETIN, and look upon this turn of affairs with a good deal of suspicion and much regret; for whatever your own candid opinion may be regarding a question of vital importance, simple abuse of the code or of its adherents, and untenable assertions are certainly no arguments against the abolition of the supreme constitutional law of the medical profession in this country.

It is, however, a relief to note that the majority, a very large majority, of the American physicians who sincerely love the traditions and look with pride at the high character and standing of the profession, unconditionally approve and adhere to the code. Observe the attitude, for instance, record the expressions of one of our most eminent medical men of to-day, of the newly elected president of the American Medical Association, Dr. NICHOLAS SENN, who in his speech at Atlanta, after being ushered

into the presidential chair, delivered the following timely words regarding this very matter:

We have lost much valuable time in attacking the most sacred document in the possession of the American Medical Association—the Code of Ethics, a code that breathes the same spirit and inculcates the same teaching as the Constitution of the United States. All of us are ever ready to die, if need be, to uphold it, to strengthen it. Without the Code of Ethics this great body would degenerate into medical anarchy, without God, without law, without order. Let us preserve the cornerstone of this great institution lest it may totter, tumble, and crumble into dust.

Who that has at heart the prosperity of the American Medical Association and, above all, the dignity of the profession as a scientific and social body, does not indorse these expressions of Dr. SENN?

Would, dear Mr. Editor, that such men as Dr. SENN could live forever, in spite of your ungenerous wishes to the contrary! Respectfully yours,

Galveston, Tex.

DAVID CERNA, M.D.

[Until the advent of the millennium all men will not be of one mind, and therefore the BULLETIN is not surprised to find an esteemed subscriber at variance with the views expressed editorially. Nevertheless these views are the deliberate outcome of feeling the pulse of the rank and file of the profession within and without the portals of the American Medical Association. Every statement made editorially could be justified were it necessary. But the old code-fight cannot be renewed in the columns of the BULLETIN, since the necessity fails to be apparent from any and from every standpoint. The remarks of the presiding officer of the American Medical Association which our esteemed correspondent quotes were taken by the BULLETIN as a flight of rhetoric, for certainly the great Empire State, which, for over fifteen years has lived without a written code, and yet has strictly enforced a higher code, is not medically in a state of anarchy or disorder or without a God, and nothing of the kind can occur in any state which follows suit, as all will ultimately. The policy of the BULLETIN is to-day that which it has ever been. It is a policy which stands for the right and for the profession; and while the BULLETIN regrets the criticism, it sees no ground therein for a particle of retraction.—ED.]

The Clinical Recorder.—We welcome the second number of this quarterly, published under the auspices of the teachers at the New York School for Clinical Medicine. Articles are contributed by CARL BECK, HENRY J. GARRIGUES, LOUIS FISHER, F. C. VALENTINE, and others, which are replete with points of interest to the general practitioner. We might note *en passant* that this school is doing excellent work in that the number of practitioners allowed to attend the clinics at one and the same time is limited so that each student may, in Western parlance, "get his money worth of knowledge."

Our Correspondent Stands Corrected.—*To the Editor of the AM. MEDICO-SURGICAL BULLETIN:*—In several points your special correspondent misunderstood my address at the Atlanta meeting. I did not say "that the only real medical progress that had been made in medicine of late years had been in the way of better understanding in classifying the fevers." I emphatically stated that, while in connection with them there was but one discovery of the first magnitude, the sum of progress in all direction had been vast.

I did not deny the coexistence of malaria with typhoid fever; on the contrary, I expressly stated that the concurrent infection was possible, and had been demonstrated, but I held that it was extremely rare. In treating typhoid fever I may be called a nihilist, so far as medicines are concerned, since fully 90 per cent. of all my cases do not receive a dose of medicine.

As my address was entirely taken up with special points which I thought of importance in connection with *the fevers of the South*, I did not, of course, enter upon the large question of diphtheria and its antitoxin. Yours very truly, WM. OSLER.

Atrophy of Mammary Glands after Child-birth.

—Dr. N. M. WADE, of South Dakota, an esteemed subscriber of many years' standing, writes as follows: "Why in many women after child-birth do the mammary glands become atrophied, and what is the treatment?"

We would answer that usually the atrophy is only an apparent one. The reflex stimulus of gestation causes the glandular tissue of the mammaræ to increase; and, similarly, after this stimulus and that of lactation disappear, it is found that the glands diminish markedly in size, even to the extent of approximation in appearance and in touch to that of the male rudimentary organs. For this condition of apparent atrophy we know of no remedy except renewed gestation. Where the glands *really* atrophy it will be found that concomitantly the uterus does so, giving us the condition known as superinvolution of the uterus. While electrical stimulation may be tested we question if we possess any remedy which will permanently restore function to such atrophied glands.

The Illinois State Medical Society held its 56th annual session at Ottawa, Ill., on May 19, with an attendance of over 1000. Many of the most prominent physicians in that State were present. Among those who read papers were Dr. E. FLETCHER INGALLS and Dr. N. S. DAVIS, of Chicago; Dr. A. L. WARNER, of Kankakee; and Dr. CLARK BELL, of New York. The convention was pronounced a great success, both from scientific and social standpoints.

Kansas Medical Society.—At one of the general sessions of the Kansas Medical Society in Topeka a resolution was adopted expressing the desire of the society that no member shall by his vote help to elect any person to the Legislature who is not friendly to medical legislation, and that he will use all honorable means to defeat candidates for re-election who proved false to their promises two years ago. This resolution was brought out by the fact that some members of the last Legislature pledged their support to the bill prepared by the society, having for its purpose the suppression of quacks, but when the test came many who adopted the measure deserted it.

The following officers were elected for the ensuing year:

President, Dr. S. M. DAILY, Beloit; first vice-president, Dr. H. Z. GILL, Pittsburg; second vice-president, Dr. MELVILLE COLLINS, Oxford; recording secretary, Dr. G. A. WALL, Topeka; corresponding secretary, Dr. W. E. McVEY, Topeka; treasurer, Dr. L. REYNOLDS, Horton; Judicial Council—Dr. W. E. BARKER, Chanute; Dr. D. F. LONGENECKER, Emporia; C. A. McGUIRE, Topeka; Dr. B. F. MORGAN, Riley; Dr. W. H. MATHIS, Waverly; Board of

Censors—Chairman, O. J. FURST, Peabody; GEO. M. GRAY, Kansas City, Kan.; P. DAUGHERTY, Junction City; D. F. ROGERS, Ottawa; D. C. TYLER, Clifton; Necrology—J. W. PORTER, Litchfield; E. J. WETHERBY, Hutchinson; GEORGE W. HOGEBOOM, Topeka.

The Medical Society of Kings County held its regular monthly meeting on Tuesday evening, May 19, 1896. Papers were read by CHARLES N. COX, M.D., on "Some of the Effects of Chronic Nasal Obstruction," and by H. B. DELATOUR, M.D., on "Empyema of the Gall-bladder." Both were followed by interesting discussions.

Delaware Medical Society.—The following program of the one hundred and seventh annual meeting of the Medical Society of Delaware, to be held at Newark, Del., June 9, 1896, is announced:

State Medicine.—"Contagious Diseases of the Lower Animals, and Their Relation to the Human Family," Dr. A. T. NEALE.

Practice of Medicine.—1. "The Microscope—Its Use in Verifying Diagnosis." Exhibition of Slides—Prof. F. D. CHESTER, Delaware College. 2. "Malaria, with Special Reference to Some of its Irregular Forms": (a) "Sources," JAS. H. WILSON, M.D.; (b) "Diagnosis," to be supplied; (c) "Treatment," R. B. HOPKINS, M.D. 3. "Cardiac Diseases as Encountered in Country Practice, with Brief Reports of a Few Interesting Cases," E. S. DWIGHT, M.D.

Surgery.—1. "The Röntgen Ray—The Outlook for Its Practical Application, with a Few Illustrative Tests," Prof. G. A. HARTER, Delaware College. 2. "The Preventative and Conservative Treatment of Diseases of the Pelvic Organs," J. J. JONES, M.D.

Obstetrics.—"Obstetrical Complications," C. M. ELLIS, M.D.

Reports of Interesting Cases in Practice.—"Three Cases of Appendicitis Operated on, One with a Peculiar and Fatal Complication," H. J. STUBBS, M.D.

The secretary of the association is Dr. P. W. TOMLINSON, 700 West street, Wilmington, Del.

Massachusetts Medical Society.—The following program of the one hundred and fifteenth annual meeting of the Massachusetts Medical Society, to be held at Boston, Mass., June 9 and 10, 1896, is announced. The Shattuck Lecture will be delivered by Dr. W. W. KEEN, of Philadelphia, who will take "The Surgery of Typhoid Fever" as his subject, after which the following papers will be read:

"Diphtheria Antitoxin," Dr. J. H. MCCOLLOM, of Boston. —"Treatment of Diseases other than Diphtheria by Antitoxins," Dr. HENRY JACKSON, Boston; discussion by Dr. H. C. ERNST, of Boston. —"Internal Secretion of Glands," Dr. W. T. PORTER, of Boston. —"The Clinical Use of the Preparations from the Thyroid Pituitary Body, Suprarenal Capsules and Bone-Marrow," Dr. R. C. CABOT, of Boston. —"Operative Treatment of Congenital Dislocation of the Hip," Dr. E. H. BRADFORD, of Boston. —"Excision and Erasion of the Knee"; results, Dr. H. W. CUSHING, of Boston. —"Ultimate Results of Excision of the Hip," Dr. R. W. LOVETT, of Boston. —"Treatment of Lateral Curvature of the Spine," Dr. E. G. BRACKETT, of Boston. —"Measurements in Lateral Curvature of the Spine," Dr. G. W. FITZ, of Cambridge. —"Operative Treatment of Infantile Paralysis," Dr. J. E. GOLDTHWAIT, of Boston. —"Treatment of Club-foot," Dr. AUGUSTUS THORNDIKE, of Boston. —"Pathology of Bone," Dr. E. H. NICHOLS, of Boston. —"Operative Treatment of Caries of the Ankle," Dr. C. L. SCUDDER, of Boston. —"Surgical Treatment of Spastic Paralysis," Dr. W. N. BULLARD, of Boston. —"Treatment of Cold Abscesses," Dr. HOMER GAGE, of Worcester. —"Diagnosis of Hip Disease," Dr. E. G. BRACKETT, of Boston. —"Diagnosis of Pott's Disease," Dr. R. W. LOVETT, of Boston. —"Treatment of Flat-foot," Dr. J. S. STONE, of Boston. —"Methods of Treatment and Progress in Orthopedic Surgery." Illustrated with the stereopticon, Dr. E. H. BRADFORD, of Boston. —"The Pulmonary Invalid in Colorado," Dr. C. E. EDSON, of Roxbury. —"The Treatment of Phthisis in Sanitaria near our Homes," Dr. V. Y. BOWDITCH, of Boston; discussion, Dr. F. I. KNIGHT. —"The Treatment of Tuberculosis by the Injection of Tuberculin and its Derivatives," Dr. ALFRED WORCESTER, of Waltham. —"Nucleins and Nucleo-proteids in their Relation to Internal Secretion," Dr. R. H. CHITTENDEN, of New

Haven, Conn.—"Extrauterine Pregnancy from the Stand point of the General Practitioner," Dr. E. S. BOLAND, of South Boston. —"Ectopic Gestation," Dr. M. H. RICHARDSON, of Boston.

The reading of each paper will be strictly limited to five minutes.

University of California Commencement.—The commencement exercises of the Department of Medicine, University of California, were held on the afternoon of May 21, at the Baldwin Theater. This is the largest class ever graduated from this college, consisting of 50 members. Among the candidates who were successful for the degree of M.D. are six pharmacists.

Meetings for the Coming Fortnight.—Ontario Medical Association, at Windsor, June 3 and 4. J. N. E. BROWN, M.D., secretary, 186 King street, Toronto, Canada.

Rhode Island Medical Society, at Providence, June 4. FRANK L. DAY, M.D., secretary, Providence, R. I.

Wisconsin State Medical Society, at Superior, June 3, 4, 5. CHARLES S. SHELDON, M.D., secretary, Madison, Wis.

Indian Territory Medical Association, at Wagoner, June 2 and 3. J. G. RUCKER, M.D., secretary, Claremore, Ind. Terr.

Maine Medical Association, at Portland, June 3. CHARLES D. SMITH, M.D., secretary, 126 Free street, Portland, Me.

Michigan State Medical Society, at Mount Clemens, June 4 and 5. C. H. JOHNSTON, M.D., secretary, Grand Rapids, Mich.

New Hampshire Medical Society, at Concord, June 1 and 2. G. P. CONN, M.D., secretary, Concord, N. H.

American Association of Genito-Urinary Surgeons, at Atlantic City, first week in June. WM. K. OTIS, M.D., secretary, 5 West Fiftieth street, New York city.

American Neurological Association, at Philadelphia. GRAEME M. HAMMOND, M.D., secretary, 58 West Forty-fifth street, New York city.

Massachusetts State Medical Society, at Boston, June 9 and 10. F. W. GOSS, M.D., secretary, Roxbury, Mass.

South Dakota State Medical Society, at Yankton, June 10. W. J. MAYTUM, M.D., secretary, Alexandria, So. Dak.

Minnesota State Medical Society, at Minneapolis, Minn., June 17. I. DONNELLY, M.D., secretary St. Paul, Minn.

Navy Items.—Assistant Surgeon H. D. WILSON has been ordered to examination preliminary to promotion.

Assistant Surgeon C. M. DE VALEN was detached from the Philadelphia Hospital and ordered to Hospital Chelsea.

Assistant Surgeon E. W. SHIPP was detached from the U. S. R. S. *Vermont* and ordered to the U. S. S. *Monongahela*.

Wanted! Specific for Consumption.—One hundred and sixty thousand dollars were recently presented to the Paris Academy of Medicine by Mlle. AUDRIFFRED for the establishment of an annual prize to be awarded to the person discovering a specific for consumption. Competition is open to the whole world.

Ohio's New Medical Board.—The Ohio State Board of Medical Examiners appointed under the new law consists of eight members, as follows: Dr. CADY MARKLEY, of Toledo; Dr. N. R. COLEMAN, of

Columbus; Dr. H. E. BEEBE, of Sidney; Dr. C. A. L. REED, of Cincinnati; Dr. DAVID WILLIAMS, of Columbus; Dr. SAMUEL B. MCGAVERN, of Cadiz; Dr. JOHN K. SCUDDER, of Cincinnati; and Dr. FRANK WINDERS, of Findlay, secretary. The selection meets the hearty approval of the profession throughout the State.

Army Items.—Capt. RICHARD W. JOHNSON, assistant surgeon, was granted leave of absence for 30 days on May 14.

Lieut. Col. WILLIAM E. WATERS, deputy surgeon-general, has been granted leave of absence for two months, to take effect on or about July 1.

Maj. H. O. PERLEY, surgeon, has been granted three months' leave of absence, to take effect about July 1, 1896.

First Lieut. JAMES M. KENNEDY, assistant surgeon, Fort Missoula, Montana, has been ordered to Fort Yellowstone, Wyoming, for temporary duty with troops in the field in the National Park during the season.

Promotions to be assistant surgeons, with the rank of captain, May 4, 1896, after five years' service: First Lieut. WILLIAM F. LIPPITT, Jr., assistant surgeon; First Lieut. MERRITTE W. IRELAND, assistant surgeon, and First Lieut. GEORGE M. WELLS, assistant surgeon.

The Cigarette Prohibited.—It is said that a town in Indiana has an ordinance that prohibits the smoking of cigarettes on the street. We did not learn the penalty, but presume that, as jeopardizing the public health it ought to find classification in the category that provides for carrying concealed weapons, and be treated accordingly.

Must Have a Literary Degree.—The University of Paris will hereafter require of foreigners the possession of a literary degree as a prerequisite to graduation from its medical department.

Up-to-date Oath-taking.—At its last session the Maryland Legislature abolished "kissing the book" as part of the ceremony of swearing a witness or taking an oath. The act substitutes "laying the hand on the open Bible," thus legally reducing the danger of infection from the old method of oath-taking.

Abroad.—Professor BEHRING will devote half of the ALBERT LEVI prize, awarded to him, for the furtherance of research in connection with serum treatment in Germany.

Dr. HANS VON HEBRA, privat-docent in dermatology and syphilidology, University of Vienna, has been appointed professor extraordinary in the same institution.

Professor RÖNTGEN has been created a knight of one of the Bavarian orders by the prince regent, and is now Professor VON RÖNTGEN. He has also been presented with the honorary degree of Doctor of Medicine by the University of Würzburg.

Dr. A. OESTREICH has been appointed privat-docent in general pathology and pathological anatomy in the pathological laboratory of the University of Berlin.

One of the greatest quacks of all times and peoples, the Italian Count CESARE MATTEI, has died in Italy at the age of 87. In spite of the enormous sums he spent in advertisements, he acquired a fortune of 10,000,000 lire. He bequeathed 2,000,000 lire for the establishment in Bologna of an asylum for indigent aged men.

Docent Dr. A. FRÄNKEL has assumed the editorship of the *Wiener klinische Wochenschrift*, the former editor, Prof. Dr. RIEHL, having been called to

the chair of dermatology in the University of Leipzig.

Association of American Physicians.—At the recent meeting held in Washington, D. C., Dr. WILLIAM OSLER, of Baltimore, Md., was elected representative on the Executive Committee of the Congress of American Physicians and Surgeons. Dr. M. ALLEN STARR, of New York, was elected alternate representative. The next meeting of the association will be held in connection with the Congress of American Physicians and Surgeons in Washington, on the first Tuesday in May, 1897.

American Academy of Medicine.—At the annual meeting held at Atlanta, Ga., May 2, the following officers were elected for the ensuing year: President, J. C. WILSON, Philadelphia; vice-presidents, J. T. SEARCY, Tuscaloosa, Ala.; ELMER LEE, Chicago, Ill.; EVERETT FLOOD, Baldwinville, Mass.; J. W. GROSVENOR, Buffalo, N. Y.; secretary and treasurer, CHARLES MCINTIRE, 104 North Fourth street, Easton, Pa.; assistant secretary, E. M. GREEN, Easton, Pa. The next meeting will be held in Philadelphia, May 29 and 31, 1897.

The American Laryngological, Rhinological, and Otolological Society elected the following-named officers at its last meeting, held in New York, April 17: President, FRANK HYATT, Washington, D. C.; vice-presidents, FREDERICK L. JACK, chairman east. sec., Boston, Mass.; JOHN S. MABON, chairman mid. sec., Allegheny, Pa.; JAMES E. LOGAN, chairman west. sec., Kansas City, Mo.; WILLIAM SCHEPPEGRELL, chairman southern sec., New Orleans, La.; ROBERT C. MYLES, secretary and treasurer, 46 West Thirty-eighth street, New York city.

The Tri-State Medical Association of western Maryland, western Pennsylvania, and West Virginia.—The following program of the annual meeting, to be held at Cumberland, Md., June 4, 1896, is announced:

"The Importance to the General Practitioner of Recognizing the Early Stages of Glaucoma," by ROBT. L. RANDOLPH, M.D., of Baltimore, Md.; "Excessive Use of Drugs in Acute Febrile Infections," by A. C. HARRISON, M.D., of Meyersdale, Pa.; "The Vaginal Route to Diseased Uteri and Appendages," by R. STANSBURY SUTTON, A.M., M.D., of Pittsburg, Pa.; "Erysipelas," by CHARLES F. DOYLE, M.D., of Cumberland Valley, Pa.; "Health Boards in Small Communities," by E. T. DUKE, M.D., of Cumberland, Md.; "Further Observations upon the Treatment of Certain Pus-tubes by Drainage through the Vagina," by J. MASON HUNDLEY, M.D., of Baltimore, Md.; "Typhoid Fever," by F. L. BAKER, M.D., of Burlington, W. Va.; paper, by HENRY SALZER, M.D., of Baltimore, Md.; "The Physicians' Life and Work," by WM. F. BARCLAY, M.D., of Pittsburg, Pa.

The secretaries of the association are Dr. PERCIVAL LANTZ and Dr. F. W. FOCHTMAN.

Compulsory Vaccination.—A suit of the State of Wisconsin, *ex rel.* John Schlerf, against The School Board of Milwaukee, has been entered, the plaintiff giving up the case and withdrawing from the Supreme Court, without cost to either party. This suit has achieved a very conspicuous position in the prominent law cases of the Northwest, and involved the right of a school board to enforce the rule requiring that pupils shall be vaccinated before they are admitted to public schools.

Another Medical Mayor.—Dr. DANIEL A. CURRIE, of Englewood, N. J., who was graduated from the medical department of the University of Buffalo in 1864, holds the position of mayor in that place. The town of Englewood enjoys everything "up-to-

date" that is accessible in the sanitary line. It pays to have a medical mayor!

Chloroform vs. Ether.—Among 15,052 cases of anesthetization in Scandinavian countries in the course of a year, there were 5 deaths during anesthesia, all due to chloroform. The death-rate was 0.1 per cent. after chloroformization, 0.15 per cent. after etherization, 0.18 per cent. after ethero-chloroformization. It thus appears that, though chloroform was the only anesthetic which caused death during anesthesia, it proved, on the other hand, to be the least dangerous agent in respect to the post-anesthetic mortality. According to the *Medical Week*, the last statistics published by GURLT, of Berlin, comprising a total of 151,000 cases, give an average of 1 death for every 1924 cases of chloroformization, and every 26,000 cases of etherization.

Personal.—It was reported recently that Dr. JOSEPH H. WYTHER, of Oakland, Cal., had died. This is an error. Dr. WYTHER was long critically ill, but through careful nursing and skillful professional attention he is now convalescing. His many friends who read notices of Dr. WYTHER's death will be delighted to know that these obituary items were premature, and that his physical condition is now so rapidly improving that he promises to be soon again engaged in his professional duties.

Dr. WILLIAM P. NORTHRUP has been appointed a professor of pediatrics to succeed Dr. J. LEWIS SMITH in the Bellevue Medical College.

Dr. ANTONIO LAGARIO, of Chicago, has been appointed a member of the Bridewell Board, by Mayor SWIFT, of that city. He is one of the leading Italians of Chicago, and is the president of the Pasteur Institute of that city.

The European committee of organization of the International Periodical Congress of Gynecology and Obstetrics has selected Dr. A. L. REED, of Cincinnati, O., as honorary president of the meeting of that body which will take place in September at Geneva, Switzerland.

The Emperor of China recently conferred upon Dr. ELI B. LANDIS, at one time resident physician of the Lancaster County Hospital and Insane Asylum, the Order of the Double Dragon, for services rendered during the war between China and Japan. Dr. LANDIS was graduated from the University of Pennsylvania in 1888 and was one of the brightest men of his class.

The University of Pesth recently conferred an honorary degree upon Dr. JOHN S. BILLINGS, who is now traveling abroad. Dr. BILLINGS is Superintendent of the Consolidated Libraries of New York.

The Paris Medical Faculty has elected Professor BROUARDEL, of the chair of medical jurisprudence, to be dean of the faculty for a period of three years.

Sir WILLIAM PRIESTLEY was elected Parliamentary representative of the universities of Edinburgh and Saint Andrews, in England, on May 12, without opposition. Dr. PRIESTLEY was born near Leeds in 1829 and is a great-grand-nephew of JOSEPH PRIESTLEY, the celebrated chemist. He was educated at Edinburgh University, where he was graduated in medicine in 1853, receiving the Senate gold medal for original research. In 1884 Edinburgh conferred on him the honorary degree of LL.D. He settled in London as a physician in 1856, and two years later became F.R.C.P. Edin. In 1864 he became F.R.C.P. Lond., and served the office of censor of the college in 1891. Among other distinctions he was appointed in 1862 professor of obstetric medicine at King's College, London, and in 1875 and 1876 he was president of the Obstetrical Society of

London. He has been examiner to the universities of Cambridge and London, the Victoria university, and the Colleges of Physicians and Surgeons. He was knighted in 1893.

Dr. H. M. CHRISTIAN, surgeon in charge of the Genito-Urinary Dispensary of the University of Pennsylvania, was recently elected adjunct professor of genito-urinary diseases at the Philadelphia Polyclinic.

Obituaries.—Dr. SAMUEL EDWIN WYMAN, in Cambridge, Mass., on May 8. He was graduated from the Harvard Medical School in 1879.—Dr. WM. COMACK, of Guelph, Ont., in South Africa, on April 2, last, aged 35 years.—Dr. GEO. C. ZEYN, in Alameda, Cal., on May 9.—Dr. GEO. W. FAY, late of Menasha, Wis., in Huron, S. D. Aged 74 years.—Dr. WM. C. TENNANT, of Mt. Clemens, on May 12.—Dr. EDWARD J. FORSTER, Surgeon-General on the staff of Gov. WOLCOTT of Massachusetts, on May 15, on board the Fall River steamer *Puritan*. He was graduated from Harvard in 1868.—Dr. HENRY C. CHRISTY, in Toledo, on May 12, aged 58 years.—Dr. EMIL CUSTER, in Manchester, N. H., on May 18, aged 66 years.—Dr. SELIM M. WELCH, of Sutton, N. H., in that town on May 15, aged 62 years. He was graduated from the Dartmouth Medical College in 1877.—Dr. F. H. SMITH, in San Luis Obispo, Cal., on May 9.—Dr. W. F. SPRAGINS, in Aberdeen, Miss., on May 13.—Dr. W. S. BRISCOE, in Washington, D. C., on May 16, aged 56 years.—Dr. EMMETT H. KIRK, of Cleveland, O., on May 10, aged 38 years.—Dr. ARLINGTON BOYCE, in Saratoga Springs, N. Y., April 26, aged 73 years.—Dr. JOHN E. KELLY, in Knoxville, Tenn., on May 5, aged 40 years.—Dr. J. S. BUSKIRK, in Shelburn, Ind., on May 8.—Dr. JACOB RAU, in Newark, N. J., on May 7.—Dr. JEREMIAH W. WILSON, in Contoocook, N. H., on April 30, aged 80 years.—Dr. J. A. KNOWLTON, suddenly, at his home in Akron, O., on May 18, aged 73 years. He was graduated from the Cleveland Medical College in 1846.—Dr. A. W. HOFFMEISTER, in Fort Madison, Ia., on May 17, aged 69 years. He was graduated from the St. Louis Medical College in 1854.—Dr. EDWARD K. BAXTER, in Boston, Mass., on May 22, aged 56 years. He was a graduate of the College of Physicians and Surgeons in New York. After taking his degree he became assistant physician of the Hartford Insane Asylum. Later, he held a like position at Sanford Hall, a private retreat at Flushing, L. I.—Dr. SELIN N. WELCH, of Sutton, N. H., in Concord, on May 15. He was graduated from Dartmouth Medical College in 1877, and was a member of the New Hampshire Medical Society at the time of his demise.—Dr. C. P. FROST, Dean of Dartmouth College, and Professor of Science and Practice of Medicine in that institution, in Hanover, N. Y., on May 24, aged 66 years. He was graduated from Dartmouth College in the class of '52.

Antinosine in the Treatment of Soft Chancre.

—The following is recommended by P. UNNA and A. HERZ (of Hamburg) for the treatment of soft chancre: The sore and the neighboring parts having been well cleansed and washed with an antiseptic solution, the surface is carefully rubbed with a powder of antinosine. After two to six applications of the drug the chancre loses its lardaceous appearance, and is transformed into a simple sore, which cicatrizes rapidly. Nosophine and antinosine, being but slightly toxic, may be employed without danger in the dressing of wounds. They are non-painful when applied, and are hemostatic in their action.—*Sem. med.*

PUBLISHERS' DEPARTMENT

USE OF BONE-MARROW

A pamphlet has just been issued by Messrs. ARMOUR & Co., of Chicago, upon the use of bone-marrow in various forms of anemia. The work contains several interesting reports on the subject, by Dr. JOHN A. ROBISON, A.M. All physicians who would like a copy of this book can secure it upon application. Dr. ROBISON, at a clinic at the Rush Medical College, demonstrated the microscopic changes that occur in the blood in splenic leucemia and various forms of anemia. He quoted at length from a report in the *British Medical Journal* of June 2, 1894, illustrating the treatment given a patient by Dr. THOS. R. FRASER. The patient had the symptoms of frequent vomiting and diarrhea, edema of the feet and ankles, moderate and irregular pyrexia, dimness of vision, retinal hemorrhages, dyspnea, followed by complete prostration. The ordinary treatment with iron and arsenic was instituted, and an examination of the blood showed further deterioration. In the fifth week ox-bone marrow was given by the mouth, uncooked, in addition to the medicines. A rapid improvement ensued. At the end of four months the patient felt strong, and after eight months he was discharged to return to his occupation as a laborer. Dr. ROBISON states that: "Inasmuch as it has been demonstrated by physiologists that the colored blood-corpuscles are derived from the large, pale cells in the red marrow of bones, especially of the ribs, Dr. FRASER's treatment is especially happy in theory, and apparently successful in this one case."

The pamphlet further quotes from articles in the *Lancet*, on "Leucocythemia," apparently cured by bone-marrow; from the *Medical Record*, a case of "Splenic Myelogenous Leucemia," improved by bone-marrow; and also from the *Inter-Colonial Quarterly Journal of Medicine*, a case of "Pernicious Anemia Cured by Bone-marrow."

ANTI-KAMNIA

Of the thousands of testimonials indorsing the merits of Antikamnia as a pain reliever, one of the strongest is that of SAMUEL WOLFE, A.M., M.D., physician to the Philadelphia Hospital, who stated in a recent article that he had found Antikamnia valuable for reducing temperature in febrile complaints; as of service in many forms of pain connected with febrile diseases; as useful in rheumatic and gouty affections; in neuralgic and myalgic pains, as at once a palliative and an assistant in curing; as a valuable adjuvant to other recognized therapeutic measures in neurasthenia, hysteria, and migraine; and as having a wide application in organic nervous diseases. Dr. WOLFE considers that it is the least depressing of all the drugs used to control pain, and least disturbs the digestive and other functions. He further states, in effect, that the scientific physician always prefers to treat a cause or condition rather than a symptom, and if he can remove pain by abolishing its cause, he will do so rather than blunt the sensory structures. It frequently, however, becomes necessary to give relief from mere symptoms, especially in cases when pain is present, in which cases he finds Antikamnia very valuable.

Antikamnia is largely used and prescribed as an analgesic and antipyretic in the treatment of neuralgia and rheumatism. It is put up in powder or tablet form and is not disagreeable to take. It is de-

scribed as not a preventive of, but as affording relief to, existent pain, and appears to exert a stimulating, rather than a depressing action, on the nerve-centers and system generally. It is one of the most valuable coal-tar products.

The *Edinburgh Medical Journal*, in speaking of Antikamnia, says that it appears to act as a very speedy and effective antipyretic and analgesic in doses of from 3 to 10 grn.

THE "MONELL"

The Jerome Kidder Manufacturing Company, 820 Broadway, New York, are in receipt of the following letter from Dr. JOHN J. GAYNOR, of Eureka, Cal.:

I have already a triumph to record for the "Monell." I have one case of exophthalmic goiter that resisted galvanism, no matter how or by whose method it was tried. I am well supplied with medico-electrical works, even to the latest, so that when I say I tried all methods it is true. Hence my ordering a "Monell." I could not keep the patient's pulse under 100 with galvanism, and I gave her a month's holiday. She came back with a pulse of 125, and I started with the "Monell," reducing it in one sitting to 84. "An." over arch of aorta; "ca." on cilio-spinal center. Next visit, pulse 94. "Monell" again, pulse 84 at close; next day 94-84; next day 94-82; next day 78-72; next day 76-72. This result has insured my good-will for your house and the instrument. I am very thankful for your trouble in writing particulars about X-ray apparatus.

ARSENAURO

A valuable preparation of the bromides of gold and arsenic; is considered effective as a tonic in treatment of diseases of the nervous system. It is largely prescribed in cases of neurasthenia, epilepsy, sciatica, and other blood diseases. Dr. E. A. Wood, Chairman of the Committee on Dietetics of the American Medical Association, recommends it as stimulating the brain, as inciting a flow of spirits, and as being a producer of sleep. It is prepared by the Charles Roome Parmele Company, of 98 William Street, New York.

PROTONUCLEIN

N. H. KIRBY, M.D., of Concord, Mass., quotes this case of a male patient who was successfully treated with Protonuclein:

Mr. J., aged 24, presented the following symptoms: For a long time he had been troubled with inability to retain food; had severe pains in the stomach, increased by the presence of food and by pressure over region of stomach. This pain would be relieved by vomiting, sometimes there would be vomiting of blood; bowels constipated, tongue covered with thick coating. I tried several remedies at that time, such as pepsin, bismuth, nitrate of silver, aromatic powder, etc., mustard over epigastrium, etc., together with a strict diet. This course of treatment was followed by temporary improvement, but no real improvement. After about two months he was much reduced in flesh, his weight having dropped from 160, his normal weight, to 124 pounds, and every symptom increased in its severity, and so weak and exhausted was he that he was unable to follow his usual occupation. I straightway put him upon a strict diet again, and gave him Protonuclein, grs. iij, every four hours, to be taken religiously. From the beginning of the administration of Protonuclein he began to improve, and gradually to retain food. The pain began to diminish, and he gained fully ten pounds in weight within the first two weeks. His appetite and strength returned, and in fact there was rapid and permanent improvement. When I last saw him he was apparently well.

English Recognized.—The Russian Committee of the XII. International Medical Congress are fulfilling a general wish by placing the English language on the same basis as the German. French will be the official language of the Congress.

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BACTERIO-THERAPY OF MALIGNANT NEOPLASMS

GLUECKSMANN, in the *Münchener medicinische Wochenschrift*, 1896, No. 5, p. 98, writing from the Surgical Division of the Karl-Olga Hospital at Stuttgart, says that, in contradistinction to many of the bacteriological methods now extensively employed in therapy, the experiments which were made with regard to malignant neoplasms (new formations?) were based on practical observations and experience. In 1866 BUSCH saw a case of multiple sarcoma of the skin which healed spontaneously after intercurrent erysipelas. BIEDERT in 1868 reported a similar fact in the case of an enormous round-celled sarcoma of the buccal cavity, nares, and fauces. Later there were more reports of cases of a similar nature, especially one by BRUNS in 1868, in which he gave his observations concerning a melanotic sarcoma of the breast; and more recently COLEY and CZERNY, as well as other observers, have seen sarcomatous neoplasms disappear spontaneously after erysipelas.

In order to make use of these practical experiences, three different methods have been employed: First, FEHLEISEN (the discoverer of the streptococcus of erysipelas), in 1883, by artificially producing real erysipelas, simply copied nature in her curative efforts. His seven cases, four sarcomas and three carcinomas, all showed improvement, one sarcoma being completely reabsorbed. FEHLEISEN fully appreciated the danger of this infective method. The cases of other authors (JANICKE, 1884, and FEILCHENFELD, 1888), in which the "curative" erysipelas was the direct cause of death, illustrated the great danger of the method. Nevertheless, the successes were such that BRUNS declared that the artificial production of erysipelas was fully justified as a last resort in desperate cases of inoperable tumors.

The second method of treatment is that by intoxication. LASSAR, in 1891, for the first time, treated a *Lupuscarinom* with *Bacterienstoffwechsel-*

producten derived by filtration of streptococci cultures that had been killed by heat. He was unable to show any favorable results. In 1892 SPRONK operated upon 8 sarcoma and 17 carcinoma cases at the Pasteur Institute, with a preparation made by filtration from a mixture of dead and living streptococci. His sarcoma cases were influenced favorably, but he had to admit the lack of permanency of success and the inefficiency of the preparation after the patients had become accustomed to it. The greatest technical development has been given to this method by the work of COLEY, who has traversed the entire field of observation, from the spontaneous cure of sarcoma owing to intercurrent erysipelas to the method of infection and of intoxication. He recognized the difference in effect of a filtrate carefully freed from bacterial bodies and the incomparably stronger sterilized preparation derived by heating the cultures. He took advantage of ROGER's discovery concerning the increased virulence of the culture when combined with the bacillus prodigiosus. COLEY adopted parenchymatous injections, which, according to THIERSCH, had already been tried with various other reagents, especially nitrate of silver 1:4000-1:1000. His observations are by far the most extensive: 38 cases of sarcoma and 19 of carcinoma. He has had 9 complete cures and no recurrences during a period of eight months.

In Germany the intoxication method, as developed by COLEY, has been used by FRIEDRICH at THIERSCH's clinic on a number of cases—13 carcinomas and 4 sarcomas. He did not, however, obtain any definite results. While FRIEDRICH did not present any new phases in his work, it is nevertheless of considerable importance, as it helped to make the method known in Germany, because he has reported the result of his investigations in a most conscientious and exhaustive way, and the method has received an impetus through his paper at the Surgical Congress. At this Congress (while LAUENSTEIN's

experiment had remained unsuccessful) KOCHER reported a very great reduction in the size of an enormous recurrent sarcoma of the pelvis while under COLEY's method of treatment, but the decrease in size was only temporary, as the patient had a recurrence. ESMARCH's statement, that in all the instances of the successful treatment of apparently malignant tumors by the bacterio-therapeutic measures the growths must be considered as syphilitic in origin and not sarcomatous, demands attention.

In spite of the rather discouraging results reported by FRIEDRICH, further experiments with the Coley method must be undertaken when a man like CZERNY reports the cure of a case of sarcoma of the parotid, which he declares due to this method. Further reports, for and against the method, have been made by American physicians.

Within a year attempts have been made also to cure malignant tumors by erysipelas serum. EMMERICH tried to combat malignant neoplasms by injecting the blood-serum of sheep that had previously had erysipelas. He called his preparation "cancer serum," which name he tried to justify in a pamphlet published in combination with SCHOLL, covering six cases of carcinoma, of which one had to be dismissed as incurable, another for extraneous reasons, while the remaining four showed improvement under the treatment. COLEY had also tried the serum method without definite results. He then prepared a "mixed serum" by simultaneous inoculation of streptococcus and bacillus prodigiosus.* As to the efficacy of this, however, he is not yet prepared to say anything definite. Recently, EMMERICH and ZIMMERMANN have published a paper regarding four cases that were favorably influenced by the serum. Remarkable about this latter publication is the new modification of the method; especially favorable results are said to have been obtained by the inoculation of living erysipelas cocci after previous serum treatment. Perhaps this modification implies a practical progress. However, EMMERICH makes no claim to originality, and simply returns to Fehleisen's method of infection. In 1891-2 COLEY treated 10 cases of inoperable malignant tumors with repeated injections of living cultures of erysipelas streptococci.

Having thus briefly given the bacterio-therapy of malignant neoplasms, a few remarks may be permissible with reference to the manner in which these endeavors, which arise from a purely empirical basis, may be reconciled to the general pathological views of the present time.

The histological results principally establish the existence of an inflammatory process in the tumor itself, in the case of artificial as well as in spontaneous erysipelas, and also in case of treatment with erysipelas derivatives. From this it would seem that, as far as malignant neoplasms are concerned, the curative factors are to be found in the natural reaction (the general, febrile, and the local inflammatory reaction caused by the erysipelas) of the organism. Of course not every inflammation has this effect upon malignant new formations, and we must consider it a specific peculiarity of the erysipelatos inflammation, based on the well-known pathological fact that various causes of inflammation will produce different results.

This conclusion (1) explains all the observations that have been made, and makes further scientific research along these lines possible, without forcing us to state any binding conditions with reference to the much contested nature and etiology of malignant tumors. (2) It represents the therapeutical actions that have been observed as to the purely accidental consequences of an inflammatory process that has taken place in accordance with generally accepted pathological laws. It excludes any premeditated endeavor on the part of the erysipelas to injure the tumor. Nature has, in fact, no such intention, for frequently the erysipelas may, on the contrary, produce an enormous enlargement of the tumor. This is shown by the cases cited.

Our theory, therefore, cuts loose from every principle of purpose or intention in the inflammation. It even permits of an explanation of the florid recurrences so often noticed in cases that have been improving in the beginning. The present theory places the local action upon the tumor in the foreground, thus giving an explanation for the frequent observation that all metastases that are remote from the tumor continue to grow steadily, while a tumor under erysipelas inflammation melts away, so to speak.

The Metric System.—It is thought that when conservative England adopts the metric system of weights and measures France will show her appreciation of the compliment by adopting Greenwich time—thus forming the connecting link for a single standard of time for navigators all over the world. England and the United States are the only remaining nations of the greater powers that have not adopted the French system, and it seems probable that the latter will be the last to supplement its formal sanction by legal enactment providing for its adoption as the recognized standard. Even the Turks and Japanese have preceded them in this step to greater advancement and civilization.

* This method has since been adopted by COLEY.—[ED.]

ORIGINAL CONTRIBUTIONS

NOTES ON SOME OF THE NEWER METHODS OF TREATMENT OF NERVOUS AND MENTAL DISEASE *

By FREDERICK PETERSON, M.D.

Clinical Professor of Insanity, Woman's Medical College of the New York Infirmary; Chief of Clinic, Nervous Department, Vanderbilt Clinic, College of Physicians and Surgeons, New York; Visiting Neurologist to the City Hospital; Consulting Physician to the Manhattan State Hospitals for the Insane

THERE are few conditions in the endless variety of diseases coming under the observation of the medical practitioner so difficult to treat satisfactorily as those which concern the nervous system. Wonderful have been the strides of science in all directions during the past ten years, and that of neurology has kept pace in divers ways with its sister-sciences; for have we not unveiled many mysteries in the domain of the brain and spinal cord, disentangled many curious plans of structure, solved many remarkable problems of function and of localization, and brought the pathology of many nervous and mental disorders into the clear light of day? No one gainsays this; and there have been real triumphs of modern medicine resulting from such discoveries, particularly in the field of surgery. There have been revelations, marvels, undreamed-of successes, in the new surgery of the nervous system. And yet it must be confessed that the new surgery concerns but a restricted class of these disorders, and the great majority of nervous diseases have still to be regarded as obstinate and unyielding, still to be looked upon as unsatisfactory to deal with, still to be treated in a more or less empirical manner. The therapeutics of nervous and mental disease has not kept pace with our great progress in the realms of anatomy, physiology, and pathology. Still, advance has been made even in therapeutics, which should be after all the most important part of our aim, for if we are not to prevent and cure the diseases which we so laboriously and successfully investigate, to what end should our researches tend? It is my purpose in this brief paper to touch upon a few methods of treatment, some new and some revived from an older time, methods with which you are already more or less familiar, but which I wish to amplify and comment upon from the results of my own experience. I shall first speak of several general therapeutic applications and procedures, and then of some particular conditions, diseases, and drugs.

Rest.—It was in 1860 that HILTON began his series of lectures on rest and pain, in which he pointed out how much rest had to do with growth and repair of the bodily tissues, and 15 years later MITCHELL wrote of the value of rest in the treatment of hysteria and neurasthenia. Nowadays, however, we apply the principle of rest to a great variety of nervous disorders. Besides its indication in many cases of hysteria and neurasthenia, we

find it of the greatest benefit in all sorts of nervous and mental troubles, and especially in such as evince a tendency to waste of tissue and to exhaustion. Most cases of acute mania need to be treated by rest, which should be made as absolute as possible. Many cases of acute melancholia recover more quickly when confined to bed. There are cases of epilepsy in which subjection to the rest treatment modifies the attacks in their severity and frequency. Mild types of chorea do not need such aid, but the medium and severe grades of chorea are always distinctly benefited by more or less protracted rest in bed. While in many nervous and mental cases the rest should be absolute for a period of several weeks in order to insure a successful termination, it is astonishing how much benefit can be obtained by a modified rest treatment; that is, by merely prolonging the daily amount of repose in bed. Early going to bed and late rising are not only good for many an overworked student, housewife, or business man, for many a mildly neurasthenic or hysterical patient, for numerous cases of incipient mental disturbance, and for epileptic and choreic patients, but they are frequently useful in such disorders as locomotor ataxia, habit spasm, vertigo, anemia of the brain and cord, exophthalmic goiter, writer's cramp, and other professional neuroses (which indeed are local expressions of general nervous exhaustion), hypochondriasis, and kindred conditions. The principle is to apply rest methodically and in proportion to the degree of nervous exhaustion, strain, or irritation.

When rest is made nearly absolute it is necessary that tissue metabolism should be encouraged by attention to the amount and quality of food, and especially by substitution of some passive artificial exercise for the active movements upon which the organism has hitherto depended. This is accomplished chiefly by massage.

The Aliptic Art.*—Now, massage was a favorite remedy and luxury in ancient Roman times, when it figured as the Aliptic Art, so that it is not at all a new remedy, but its vogue in recent years has assumed enormous proportions, and it has received a scientific study and systematization to which the ancients were strangers. This rubbing, beating, and kneading of the trunk and limbs, when skillfully done, is an essential adjunct to the absolute rest treatment. Moreover, it has great importance in all sorts of muscular atrophies. It is invaluable in many kinds of pain, and it often surpasses drugs as a soother of irritation and an inducer of sleep. I have already alluded to the question of diet.

Diet in Nervous and Mental Disease.—It is needless to say that in connection with a form of rest treatment, simplicity should be the rule as regards food. The selection should be made from the point of view of easy digestibility, and foremost in this regard stand milk and its various preparations. Where milk cannot be taken in its ordinary form, some more digestible preparation may be employed,

* Read before the Texas State Medical Association at Fort Worth, April 28, 1896.

* "The Aliptic Art: A Historical Study," Dr. FREDERICK PETERSON, *Phila. Med. News*, Aug. 11, 1883.

such as peptonized milk, kumyss, matzoon, or so-mal. In cases undergoing a rest treatment this is the main staple of food, and it should be given frequently and in considerable quantity. Overfeeding is indeed another principle in the treatment of any of the nervous and mental diseases in which exhaustion is a feature. Thus, absolute rest and overfeeding must be our chief reliance in acute mania, in severe types of melancholia, neurasthenia, hysteria, chorea, and the like. Many cases require feeding every hour or two hours. Raw or soft boiled eggs, rare or raw beef, specially prepared cereals, and sometimes green vegetables and fruits may be added to the diet. By specially prepared cereals I mean simple boiled rice, stale bread in the form of toast, or, better, bread which has been twice baked (*zwieback*). Stimulants are only occasionally indicated, and then especially in acute maniacal or other dangerously exhausting conditions.

A somewhat similar form of diet is appropriate for neuralgias and mental disturbances having a rheumatic or gouty diathesis as a basis. The same diet is essential in all cases of insanity, neurasthenia, epilepsy, and so on, which seem to depend upon auto-intoxication from fermentative or putrefactive changes in the intestinal contents, and such cases we find nowadays to be not at all infrequent.

Hydro-therapy.—The water-cure is not a new thing to your association, for you have some excellent hydro-therapeutic establishments in Texas. Yet it is only lately that the therapeutic value of water has become generally recognized in this country. When I wrote an article in the February, 1893, number of the *American Journal of the Medical Sciences* on "Hydro-therapy in the Treatment of Nervous and Mental Diseases," there was really no place in the city of New York to which one could send patients and have his own ideas as to treatment faithfully carried out; nor did I know of a single asylum for the insane in this country installed with hydro-therapeutic apparatus, such as I had seen in a number of asylums abroad, even in so remote a country as Greece. Now I could name several public and private asylums which are equipped with arrangements for this purpose. Abroad, this method of treatment has taken a stand second to no other. In the Vienna University there is a chair devoted to this branch of therapeutics; and as regards the particular value of hydropathic procedures in the class of diseases under consideration, the incumbent of that chair, Prof. WINTERNITZ, told me that three-fourths of the patients in his institute for hydro-therapy were sufferers from nervous complaints.

Water affects the nervous system in a variety of ways.

Cold baths increase and warm baths diminish the irritability of the brain and spinal cord in a reflex manner by stimulating the sensory and vaso-motor nerves of the skin, thus influencing the cerebro-spinal circulation.

Short cold baths, especially when combined with sprinkling, showering, or rubbing, are powerfully

stimulating, exhilarating, and tonic. Cold baths stimulate peristalsis and the visceral reflexes in the cord, and increase blood-pressure. Prolonged warm baths, steam and hot-air baths, and the hot pack are relaxing, fatiguing, and tend to induce sleep. Warm baths diminish arterial tension, and reduce the irritability of individual nerves and the whole nervous system. The spinal douche is of the greatest service in many nervous disorders, because of its remarkable tonic, revulsive, and derivative effects. It is a powerful mental as well as physical stimulus. By means of various nozzles it is ejected in the form of a strong stream up and down the back of the patient for a few seconds only, at a distance of some ten feet. Patients with good reaction do not need any special preparation, but at the beginning it is well to have the patient take a warm bath or stay a few minutes in a hot-air box previous to its application. At the first *séances* the water should not be too cold. Later it may be gradually lowered to 50° Fahr. It should be taken every day when possible. Occasionally this cold spinal douche is alternated with a hot douche (the so-called Scotch douche). This is an exceedingly successful procedure in many cases of hysteria, neurasthenia, and in lethargic and hysterical forms of insanity, where there are sluggish intellect, great depression, apathy, stupor, catalepsy, etc.; and in any case of nervous and mental disease where anemia, chlorosis, or gastric trouble exists. I have seen it effective in diminishing some of the symptoms even of locomotor ataxia.

In insomnia there is no other remedy so generally efficient and at the same time so innocuous. I have seen it successful in wakefulness from every kind of cause, and in cases seemingly intractable to other remedies. Not long ago an especially instructive case presented itself. A distinguished general practitioner in New York brought me a man from the northern part of the State who had been a victim of insomnia for 17 years. He had consulted many physicians and there was no hypnotic drug in the Pharmacopeia which had not been tried for long periods. They had of course for a time produced sleep, but only in large doses, and the man was utterly shattered in his nervous system by such treatment. He was tottering and tremulous, his stomach disordered, his mind beginning to be enfeebled, and his sleeplessness was only diminished by large doses of deleterious drugs. It was evident to me that hypnotics were no longer to be thought of in such a case. I had him begin the same evening with the hot wet pack. He had a full night's refreshing sleep, and it has since continued to be as successful. The harmful drugs have been banished and the man is rapidly recovering his almost forgotten health. There are two hydropathic procedures for the production of sleep. One is the prolonged warm whole bath at a temperature of 70° to 90° Fahr. for from one-half to two hours just before retiring. This is indicated in mild cases of insomnia. But the hot wet pack is more effectual, and more

widely applicable in all forms of sleeplessness, whether in nervous or insane individuals. It is applied in this way: A blanket, 9 by 9 feet, is spread upon the patient's bed, and upon this a sheet wrung out dry after dipping in hot water is laid. The patient lies down upon this, and the sheet is at once evenly arranged about and pressed around the whole body with the exception of the head, after which the blanket is also immediately likewise closely adjusted to every part of the patient's body. Other dry blankets may now be added as seems necessary. The patient remains in this an hour or longer; all night if asleep.

I know of no better treatment of acute maniacal conditions, for instance, than rest in bed, over-feeding, and the hot wet pack. In severe forms it is sometimes absolutely necessary to use a drug, and then I give sulphate of duboisin hypodermically in $\frac{1}{100}$ to $\frac{1}{50}$ grn. doses; but it is surprising how many cases will do well on this treatment with no drug at all.

A nightly cold foot-bath, with some chafing of the feet, has been exceedingly successful in my hands in the treatment of one of the most obstinate disorders, as far as drugs are concerned, viz.: congestive headache.

But the uses of this valuable therapeutic agent are much more diverse than I have space to detail here, and it is gratifying to observe how widespread the employment of hydro-therapy is becoming from year to year.

Electricity.—In the domain of electro-therapy there have been considerable strides of late years. We have attained to a greater knowledge of the effects of different currents. For instance, I have experimented with for some years, and described in several papers, that peculiar effect of the continuous current which goes under the name of cataphoresis, anodal diffusion, electrical osmosis or voltaic narcotism.* I do not know of anything better than cocaine cataphoresis for the immediate relief of trigeminal neuralgia of peripheral origin. To use morphine in such cases is, to my mind, criminal, since the patient is almost certain to acquire a morphine habit. Cocaine cataphoresis gives relief for from five to ten hours. It is also useful in local spasm, such as blepharospasm and facial tic. For general conditions, such as gout, syphilis, and rheumatism, which induce various nervous disorders, the cataphoretic bath can be employed with greater success than any other kind of treatment.

Besides these conditions, it is doubtless through cataphoresis that trophic disorders are influenced, as for instance when the galvanic current is given for muscular atrophies. It is the cataphoretic effect

of the current that transfers molecules of protoplasm in its path from one cell to another, from the cells into the blood-stream, and from the blood-stream into the tissues. Hence in muscular atrophies we have this important guiding principle: Since the amount of cataphoretic effect depends upon the current strength, we need to employ very large electrodes (covering for instance the whole atrophied part) or local immersion of the part in an anodal bath, and to make use of as many milliamperes of current-strength as possible.

Another new thing in electro-therapy has been the introduction of the sinusoidal current. This is, in brief, an alternating current analogous to the secondary current of the faradic battery, but with an enormous number of vibrations per second. A great deal has been said, perhaps too much, in favor of this new current, especially in France. Some three years ago Mr. KENNELLY and I experimented at the Edison laboratory with the sinusoidal current. The results of those experiments have never been made public, for lack of time, until the present moment. We established one singular and interesting fact, which is of therapeutic value, and which I will detail here. The experiments were tried upon Mr. KENNELLY, Dr. CHARLES E. ATWOOD, one of the assistants at the Vanderbilt Clinic in the nervous department, who kindly aided us, and upon myself. The same results were obtained in each of us. Applying one pole to a nerve trunk, say at the wrist, and another at an indifferent point, there were no perceptible effects as long as the vibrations were below 2000 per second. When we reached that point the parts supplied by the nerve beneath the pole became anesthetic, so that pricking with a needle or knife, or touching the part, was not perceived. Both the anesthesia and analgesia were so marked that an incision might have been made without the consciousness of the individual operated upon. The higher the rate of vibration the more noteworthy was this effect. Our apparatus did not permit of our going beyond 3000 vibrations per second. We seemed to set up a vibration in the nerve which abrogated the normal nerve vibration and thus prevented the transmission of sensations to the brain. The return of sensibility was instantaneous on interruption of the electric current. Doubtless small operations might be performed by this new method of local anesthesia. As yet the procedure is in its infancy. It will relieve severe neuralgias temporarily, and I presume as the method is more perfected it may be productive of gratifying results in this field, much better than by any other system of vibratory application.

The recently discovered X-rays of RÖNTGEN will not only bring out remarkable facts in connection with the whole subject of light and electricity, not only have a use in surgical diagnosis as has already been demonstrated, but are destined, I am sure, to aid us in the investigation of the structure of the central nervous system. We will very likely not be able to photograph the brain, but we

* Papers by the author: "Electrical Cataphoresis as a Therapeutic Measure," *N. Y. Med. Jour.*, April 27, 1889;—"A New Method of Accurate Dosage in the Cataphoretic Use of Electricity," *N. Y. Med. Jour.*, October 15, 1890;—"Farther Studies in the Therapeutics of Anodal Diffusion," *N. Y. Med. Record*, January 31, 1891;—"Introduction of Drugs into the Human Body by Electricity," *Philadelphia Times and Register*, March 21, 1891;—"Electricity in the Diagnosis of Nervous Diseases," *Bu. Med. Jour.*, October, 1892;—chapter on Cataphoresis in Bigelow's "International System of Electro-therapeutics," Philadelphia and London, 1894;—"Methods of Employing Electricity in Nervous Diseases," *Bu. Med. Jour.*, November, 1895.

may photograph sections of it of varying thickness, and of parts of the spinal cord and nerves, and taking advantage of the varying conductivity of metals as regards the X-rays, and of the susceptibility of different nervous tissues to certain metal stains, we shall probably be able to definitely increase our already large knowledge of nerve and cell relations.

Vibratory Therapeutics.—The employment of vibration in nervous disorders is not exactly new, but it received a new impulse when CHARCOT and his school not long ago reintroduced it in the treatment of certain affections. There is no doubt of its usefulness in a variety of disorders, such as neuralgia, neurasthenia, hysteria, and headaches. A vibrating chair has been found serviceable for cases of paralysis agitans. I have noted marked benefit in obstinate tinnitus aurium from vibration over the temporal bone. The apparatus I use is various. This cap I had especially made for me. It consists of parts for adjustment to the head. Upon the vertex a small electric motor is fixed, and by means of a small lever with ball attachment (an eccentric) the vibration may be made slow, coarse, fine, or rapid, as one may deem expedient, and the rate of vibration may be determined. Another instrument I have had made for me is a modification of the electric engraving tool, adapted to the administration of vibration to definite points along nerve trunks. Another apparatus that I make use of is one patented and manufactured in Sweden. With this, vibration of any degree may be given to any part of the body, by means of divers kinds of handles—to the trunk, extremities, head, and even to the larynx and eye. I presume the therapeutic effects of vibration consist of nutritional changes induced by the shaking up of the parts to which it is applied, and of modifications in nerve-impulses from the counter-waves produced by the apparatus.

(To be continued)

REPORT AND PRESENTATION OF A CASE OF SUCCESSFUL CHOLECYSTOSTOMY *

By R. FERGUSON, M.A., M.D.

MRS. W., aged 26 years, robust constitution, the mother of three children, youngest aged one year and four months. She gives a history of attacks of gastric pains dating from six months after the birth of her last child. For the first five months the paroxysms occurred about once a month. The pain usually lasted from one to two hours, and was controlled by the application of hot poultices.

The patient consulted me for these attacks 12 months ago. She located the pain in "the pit of the stomach," and then, as well as always afterward, described it as "a burning, boring pain." The attacks occurred every two or three weeks. Dizziness and ringing in the head and ears, she said, were invariably premonitory symptoms of an attack. The seat of pain was circumscribed and always epi-

gastric. The paroxysms bore no relation to the ingestion of food, bodily movements, or exercise. There was as yet no nausea or vomiting, no genito-urinary disorder, the bowels were habitually constipated, there were no hemorrhoids. On examination I found no enlargement of the liver, and no prominence or tenderness could be detected over the gall-bladder. I gave her a laxative mixture, and some anodyne pills to control the pain if required, and directed her to send for me at the onset of the next attack. Accordingly I was called to see her at night about one week thereafter. I found her suffering acute pain in the epigastrium. The pulse and temperature were normal; the patient restless and tossing from the pain; there was some tenderness over the stomach, none over the liver or gall-bladder; skin moist; feet cold; no pruritus and no jaundice. Under the influence of a $\frac{1}{4}$ -grn. hypodermic injection of morphia the pain gradually subsided. From this time until the New Year (four months) I was called four or five times, and in the course of these visits found that I had to increase the hypodermic injections from $\frac{1}{4}$ to $\frac{1}{2}$ grn. Other attacks in the intervals between my visits had been controlled by means of hot applications to the epigastrium, and $\frac{1}{4}$ grn. of morphia taken by the mouth.

In the mean time I informed the friends that I was of opinion that the recurring attacks of pain were due to the presence of gall-stones. I had studied the case for nearly three months, before I felt warranted in adhering to this opinion. I was perplexed in arriving at a diagnosis by the following conditions: The pain was always epigastric, and never in the region of the gall-bladder. It was circumscribed and did not shoot to the right hypochondrium, right shoulder, or back. The stools had been examined for months, and no gall-stones or discoloration from the absence of bile detected; the onset of the paroxysms was gradual, and the pain never terminated suddenly. There was no pruritus and no jaundice. The considerations which mainly determined my diagnosis were these: The robust, well nourished physique, absence of vomiting of blood, and the pain not constant or aggravated by food rendered gastric ulcer improbable. No emaciation, no cachexy, and the intermittent character of the attacks excluded malignant disease. The attacks were too paroxysmal, at too long intervals, and too free from digestive disturbances to indicate gastritis. The pain of intestinal colic would have been more diffused, and radiating from the umbilicus; in this case it was referred to the epigastrium alone; in intestinal colic, too, we would expect the pain to be more griping, and less constant throughout the paroxysm. My greatest hesitation was in excluding gastralgia. There was the severe, agonizing, epigastric pain, the cold extremities, normal pulse and temperature, marked pulsation in the epigastrium, the patient tossing about with arms folded over the epigastrium, as if relieved by pressure (although she could bear no pressure on the part of another). I could, however, get no history of a

* Read before the Canadian Medical Association.

neurotic tendency or enfeebled health, no trace of any functional or organic disorder of the stomach in the intervals between the attacks, and no gaseous eructations at the termination of an attack. Further, for months I had been regulating the diet, and directing such treatment to the stomach as should have had some controlling influence on any functional disorder of that organ, and, notwithstanding this, the paroxysms continued to increase in severity and frequency.

On January 3 the patient visited me at my office. She had suffered from a severe attack, lasting for several hours, the day before. On the occasion of this visit I noticed for the first time that the conjunctivæ were slightly jaundiced. She told me also that on her way from home that day, in coming down the doorsteps, the jar of her step had started up a momentary pain in the epigastrium. Prior to this she had not noticed that sudden movement or exercise affected her, but after this time she frequently stated that any sudden jar or jolting created uneasiness in the stomach.

The attacks were now occurring as often as once and sometimes twice a week. I advised a consultation with a view to operative interference. At the suggestion of the family, Dr. ECCLES was called in consultation. He saw the patient with me at my office on February 1, and after due examination he advised operative interference. The friends, however, were not yet reconciled to operative measures. I was at this time administering olive-oil, phosphate of soda, and other drugs reputed to facilitate the passing of gall-stones and render the bile less inspissated. I had already employed acid treatment without benefit. I therefore continued my present treatment, but the patient's condition grew more urgent. She now required $\frac{1}{2}$ to $\frac{3}{4}$ grn. of morphia to carry her over an attack, and the increased dose of the drug began to produce nausea and vomiting. The patient and friends were now eager for an operation, and with that view she was taken to the hospital on March 8. However, under restricted diet and rest the patient improved so well that after a two-weeks stay at the hospital she decided to return home without submitting to the hazard of an operation.

While at the hospital the seat of the pain shifted from the epigastrium to the right hypochondrium, and remained in that situation during the subsequent history of the case. On the occasion of one of my visits to the patient at the hospital she told me that a paroxysm which she had had that forenoon terminated suddenly, the cessation of the pain being accompanied by a sensation of "something dropping," as she described it, in the region of the right extremity of the stomach. From this time forward she referred to the right hypochondrium as the seat of the pain.

Four or five days after her return home from the hospital the paroxysms returned with increased severity, the pain extending from the region of the gall-bladder to the back. The attacks recurred almost daily, and lasted from four to eight hours.

One-half to 1 grn. hypodermatics of morphia were required to be supplemented by chloroform inhalation to control the frenzy of the patient, and retching and bilious vomiting followed the administration of the drugs. Jaundice and clay-colored stools now for the first time became marked, but there was not now or subsequently any pruritus.

The patient was again taken to the hospital. As Dr. ECCLES was out of the city, I requested a consultation with Dr. WISHART. He saw her with me on Thursday, March 30. An operation was decided on, and the date fixed for the following Saturday (April 1). Dr. WISHART operated. He made a vertical incision, extending 3 in. downward from a point below the ninth costal cartilage. On reaching the peritoneal cavity, the anterior margin of the liver presented itself, but the gall-bladder did not come into view. On exploration with the finger, the doctor found the bladder on a line with the incision, but removed an inch or more from the margin of the liver, and *impacted with gall-stones*. It was seized with catch-forceps and drawn forward to the mouth of the wound. A vertical opening of three-fourths of an inch was then made in the fundus of the bladder, the walls of which were found to be one-fourth of an inch in thickness, but the organ itself was normal in size.

On opening the gall-bladder, gall-stones and inspissated bile were at once freely discharged. The patient was turned on her side, and a Völkman spoon used in clearing out the residuum, and the bladder was then syringed out thoroughly with warm water. Upward of 80 small gall-stones were removed, specimens of which are here presented for inspection. The incised margins of the bladder were sutured on either side to the abdominal wound, a drainage-tube secured in the gall-bladder, and the abdominal opening closed and dressed in the usual way. Time of operation, $1\frac{1}{4}$ hours.

The patient progressed fairly for the first week following the operation. A cough from an intercurrent bronchitis, however, disturbed the wound considerably; the constant saturation and irritation of the wound with bile retarded the process of repair, inflammatory products infiltrated and collected in the dependent portions of the wound, suppuration set in, and it became necessary to separate the walls of the wound and allow it to granulate from the bottom. A further complication presented itself at the close of the second week, viz., inflammation of the left parotid gland. At first a pyemic origin was feared, but the absence of severe constitutional or febrile disturbance pointed rather to an attack of ordinary parotiditis. The pain and swelling subsided in the course of a week, and only one gland was involved. During the first two weeks after the operation the temperature ranged from 99 to 102, the pulse from 100 to 120. The bowels were constipated, but when moved by means of laxatives, the stools were not clay-colored as before. But little nausea and no vomiting followed the operation. After the second week, the tem-

perature gradually declined, but the pulse continued weak and rapid for nine or ten weeks. Localized abdominal tenderness was complained of occasionally during the first two weeks, but the pain was not so severe as to indicate acute inflammatory action. There was no tympanites throughout the whole history of the case.

On the sixteenth day after the operation the patient told me on visiting her that she feared the "stomach pain" was returning, and that it was so severe the preceding night that the nurse had been obliged to use a hypodermic injection to control it, in addition to hot applications, and that she was certain the pain was of the same character as the attacks from which she suffered before the operation. The pain recurred two and three times a week for the next two months, and varied in duration from two to ten hours. The nurse observed that as each attack subsided, a profuse flow of bile escaped from the opening in the gall-bladder. After she had suffered repeated attacks, I passed, under an anesthetic, a No. 5 hard-rubber catheter its full length into the gall-bladder, and on, as I supposed, through the cystic and common duct. I did this on several occasions without, apparently, any injurious after-effects; and every time I did so it appeared to me that the side of the catheter grated upon a hard substance about the lower third of the instrument. I am at a loss to know what caused this sensation, whether a concretion or thickened inflammatory tissue, or whether the catheter doubled upon itself in the gall-bladder. Later developments would seem to point to the last supposition as the most probable.

At the end of the tenth week after the operation the wound had undergone repair with the exception of the opening in the gall-bladder, and this too was now almost closed. The bile flowed through the opening in quantities varying from 8 to 16 oz. in the 24 hours. The severity of the attacks had by this time abated somewhat, and in the intervals between the paroxysms of pain the patient was able to go about the halls. She returned home 10½ weeks after the operation. She had lost in weight 25 lbs. since the date of her admission.

For the first three or four weeks after her return home the attacks recurred at intervals of from three days to two weeks, and were of about the same degree of severity as when she left the hospital. The fistula closed on the fourteenth week after the operation, and the jaundice reappeared. As the pains were becoming more severe I reopened the fistula, in the hope of affording some relief, after it had been closed for a week; but no improvement followed. From the 1st of August the attacks occurred daily. Hypodermics of morphia lost their controlling effect, and chloroform inhalation had to be resorted to. When the anesthetic was withdrawn, the patient tossed and struggled violently. For the three days following the 8th of August drop doses of chloroform were administered almost uninterruptedly night and day, and during those three days 36 oz. were inhaled.

For some days the friends of the patient had been insisting upon further operative measures being attempted. She was again removed to the hospital for the third time, on the evening of the 10th August, still under the anesthetic. Dr. MEEK saw her with me on the 11th, and it was decided to reopen the abdominal cavity on the following day. This was 3 months and 12 days after the first operation. It was the fourth day that she was under the anesthetic, having partaken of no food in the mean time, her mouth being merely moistened occasionally with a few drops of water to which were added in all about 2 oz. of spirits. The pulse prior to the operation was weak but regular.

Dr. MEEK operated. The abdominal wall was opened in the line of the first incision. The cut was extended downward an inch and a half longer to admit of exploration with the finger in the region of the gall-bladder. Slight adhesions had formed between the bladder and the surrounding structures; these adhesions were broken down. The margins of the opening in the gall-bladder had united to the abdominal walls. Exploration within and without the gall-bladder *failed to detect the presence of gall-stones* either in the bladder or in the ducts. The opening into the gall-bladder was enlarged to permit of exploration within the bladder. At the close of our search a body 2½ in. long and of the circumference of an ordinary fish-worm was scooped out from the bladder on a Volkman's spoon. It presented the appearance of a mucous cast, although Dr. MCGREGOR, who assisted at the operation, and subsequently examined it carefully under the microscope, was at a loss to determine positively its structure and character. Finding no cause for further operative interference, the gall-bladder and abdominal opening were thoroughly syringed, the opening in the bladder encircled by a purse-string suture firmly closed upon a drainage-tube passing into the bladder, and the abdominal wound closed and dressed. Time of operation, 1½ hours. A hypodermic of whisky was given the patient, she was placed in bed, her head covered, and hot-water bottles applied to the body. The pulse, which was almost imperceptible at the close of the operation, soon grew stronger, and in a half-hour all immediate danger from the shock of the operation was over. Stimulating and nutrient enemata were employed for the first 48 hours. At no time after the operation was there retching or vomiting; no rise of temperature and no tympanites. Since the operation she has made uninterrupted progress. In three weeks she returned home, and now attends to her household duties, although it is scarcely six weeks since the operation.

She has not had the slightest symptom of any return of her former pains. The wound is healed and the biliary fistula all but closed. Very little bile escapes during the day, but it flows more freely at night. The patient is growing hearty and strong.*

* Three weeks later the biliary fistula had completely closed and the patient, after a lapse of 18 months, continues in the enjoyment of perfect health.

I am at a loss to account positively for the return of the paroxysms of pain after the first operation. It may be that the inflammatory products incidental to the first operation blocked one or other of the ducts with mucous exudation, and that our manipulations dislodged the mucous plug or cast and conveyed it to the gall-bladder, from which it was extracted in the course of our explorations; or possibly the adhesions surrounding the bladder may have been the disturbing element in causing the periodical pain. Whether either or both of these conditions were factors in the case is only a matter of conjecture. Whatever the explanation may be, the result has given the patient a reasonable prospect of a new lease of life, while to myself, after months of anxiety and perplexity, there remains the satisfaction of feeling that "all's well that ends well."

London, Canada.

THE IMPORTANCE OF MAKING A CAREFUL EXAMINATION OF THE EAR, NOSE, AND THROAT, FROM A MEDICO-LEGAL STANDPOINT*

By W. SCHEPPEGRELL, A.M., M.D.

Vice-president American Laryngological, Rhinological, and Otolological Society; Chairman Section on Otolaryngology, and Rhinology, Louisiana State Medical Society; Vice-President New Orleans Electric Society; Fellow Société Française d'Otologie, de Laryngologie, et de Rhinologie, etc.

THE cavities of the ear, nose, and throat cannot usually be satisfactorily examined without the assistance of reflected light and certain special though simple instruments. It is on this account, probably, that cases which, when thoroughly inspected, are extremely simple in their nature, are not understood by the physician, who, not availing himself of a speculum or a laryngoscope, forms an erroneous diagnosis, which could easily be avoided. It is on this account that a shoe-button or other foreign body in the nostril has been treated for months as "catarrh," and that an impaction of wax has, on general principles, been assiduously treated with the Politzer bag. Not only is it necessary to make a careful diagnosis with a view of insuring a satisfactory result in the treatment, but this is also important from the standpoint of medical jurisprudence.

The attending physician, in a case of injury, has an important responsibility when he testifies as to the nature of the injury, and the means and manner in which this injury was inflicted; while, on the one hand, from an insufficiently thorough examination, he may allow a criminal to go unpunished, he may, on the other hand, cause an innocent person to suffer an undeserved punishment. The following case will illustrate the importance of making a careful examination and of not placing too much reliance in the history given by the patient:

On July 15, 1895, LOUISE W., colored, called at the Eye, Ear, Nose, and Throat Hospital, and gave the following history:

Eight days ago she had been suffering from a violent toothache, and, after trying various methods for alleviating the pain, a neighbor, who had called,

volunteered the advice that if she would put a mixture of salt and cayenne pepper into the ear, it would cure the toothache. Taking it in good faith, the patient inserted this mixture into the auditory canal, and the treatment was successful to a certain extent; in two or three hours she was no longer conscious of the toothache, but she had, instead, a severe pain in the ear. The pain continued, and the next day the family physician was sent for, who, without making an otoscopic examination, declared that the symptoms were due to the pepper and salt, and very properly advised that warm water be syringed into the ear for its removal. The pain continued, however, and there was also a considerable discharge from the ear, and, a few days later, the physician advised that the patient be sent to the hospital for special treatment.

A careful examination with the reflected light showed the auricular canal and the drum-membrane somewhat reddened, while in the anterior inferior segment of the drum was a sharply defined perforation, from which came a purulent discharge. Catheterization through the eustachian tube gave a distinct whistling sound, and the temperature of the patient was 99.5°.

The slightly inflamed condition of the external meatus and drum could be accounted for by the irritation due to the pepper and salt, but the perforation and its well-defined character could not be explained by this cause. The patient was then asked if she had made any efforts to remove the foreign body before the advent of the physician, and she stated that she had used the soft end of a feather dipped in oil for this purpose. As this could not have effected the perforation, she was asked if she had made use of nothing else, and she stated that she had taken an old toothpick and had inserted it into the ear to remove the pepper and salt, *but had felt a sharp pain while inserting this into the ear*, whereupon she at once desisted. The appearance of the perforation corresponded perfectly with an opening that would have been caused by a toothpick, and this was no doubt the cause of the perforation, as well as of the purulent discharge and fever.

In the mean while the patient had had an affidavit sworn out against her neighbor, who had advised her to make use of the pepper and salt, claiming that this advice was not given her for the purpose of relieving her, but with malicious intent, and that the conditions, which threatened her hearing and her health, were due to the irritating substances placed into the ear, and some days later, to my surprise, I was summoned as a witness to testify in the case for the plaintiff.

Under proper treatment the ear commenced to improve, and 10 days later the perforation had closed, and all signs of inflammatory action had disappeared. When the case was brought before the court, testimony was taken from other parties connected with the case, and finally I was called to give my statement. In answer to questions I stated that the patient had called at the hospital, that there

*Read May 14, 1896, before the annual meeting of the Louisiana State Medical Society.

was an inflammation in the ear, that no doubt pepper had been used in the ear, as I had seen small particles of it when I examined the case; but when questioned as to whether her condition had been due to the pepper and salt inserted into the ear, I explained that I had made careful notes at the time that I examined the case, and had come to the conclusion that the inflammation of the middle ear, the purulent discharge, the febrile condition, and the perforation which I had found in the ear-drum had been caused, not by the pepper and salt, but by the prick of an old and probably infected wooden tooth-pick, which the plaintiff herself confessed to have used in the ear. After hearing my testimony the judge promptly discharged the case.

New Orleans; 3723 Prytania street.

CLINICAL LECTURES

VITILIGO; PSORIASIS; INFANTILE ECZEMA; ECZEMA OF THE LIP*

By JOHN V. SHOEMAKER, M.D., LL.D.

Professor of Skin and Venereal Diseases in the Medico-Chirurgical College of Philadelphia

VITILIGO

GENTLEMEN: This woman has been kindly sent to us from the Wills Eye Hospital by one of the graduates of our school. She has been under observation at that institution on account of atrophy of the optic nerve. The patient is now 45 years of age and, as you see, a colored woman. She has an affection of the skin upon various parts of her body. The disease began 25 years ago in the form of little white specks. The development of these spots, according to her statement, was very rapid. She went to bed one night with her face of a normal hue, and the next morning, when she awoke, she found it sprinkled over with light-colored spots. These gradually enlarged and others subsequently made their appearance in other regions. At the present time there are a number of patches upon the face, covering a large part of the forehead and cheeks. The skin, in the affected parts, is as white as that of a pure Caucasian. The patient shows you also large patches of the same kind extending along the right leg. They are situated principally in front of and to the inner side of the shin. Upon the calf of the leg there are a few oval and roundish lesions. They are found also upon the right foot, and there is a large patch upon her back.

Before speaking of the nature of this disease I will call your attention to a few points regarding the anatomy of the skin. The only difference, as regards color, between different races of man lies in the mucous layer of the epiderm. The distinction between the Caucasian and the African depends upon the quantity of pigment contained in this layer. As we pass from the north to the south, or from the colder zones toward the equator, we find, as a rule, an increase of pigment in the cuticle. The epidermis consists of four layers, the upper of which is the horny and the lower the mucous.

Writers, in fact, often designate only these two layers. Differing proportions of pigment cause the yellow skin of the Mongolian, the red of the American Indian, the brown of the Malay, and the black of the negro. The color of the hair corresponds to that of the skin. In dark races or individuals an abundance of pigment occasions black hair. If the coloring matter is less, the hair is brown. If the pigment granules are intermediate between yellow and brown or black, the hair is of a reddish hue. The hair, you know, is simply a modification of the epiderm. When the functions of the ganglionic centers or vaso-motor nerves is disturbed the nutrition of the mucous layer of the cuticle is altered as the result of impressions transmitted through those nerves. The normal deposit of the pigment is deranged; it is diminished in certain spots and augmented in others, as we see, for example, upon this patient's face. You will perceive the distinct difference of shade between those regions which retain the normal color of her skin and the whitish patches upon the face, the patches being surrounded by an area in which pigmentation is increased. This disease is known as vitiligo, or otherwise as leucoderma—that is, white skin. Vitiligo is more marked and more common in dark-complected races or individuals, though it is by no means confined to them, for it may attack the fairest skins, since all are endowed with a certain amount of pigment. I well remember the case of a beautiful blonde who was under my care years ago, and whose face, hands, and arms were so disfigured by patches of vitiligo that a feeling of mortification prevented her from going into society. The contrast between the dead white of the affected surfaces and the tinge of the healthy, though fair, skin was conspicuous.

Vitiligo is a common malady. It occurs among all nations, all classes of life, all ages, both sexes, and in all parts of the world. A derangement in the nervous system of this patient is shown by the condition of her eye, and there is a strong probability that this condition has been active in producing the disease of the skin. As a rule, vitiligo is accompanied by no symptom. The only complaint of the patients refers to the change in their appearance due to the faulty arrangement of the pigment. I recall here the case of a 15-year-old colored girl who was so marked that one side of her face was white and the other black, and who anxiously implored that something should be done to make her either a white girl or a colored girl. Such persons are often shown in museums as "the girl with a leopard's skin," or some such title.

Vitiligo may depend upon any disorder of the nervous system. In our Southern States, in Egypt, the south of France, and in certain parts of Africa, the effects of malaria on the blood and nervous system often bring about this disease of the skin.

Various methods of treatment have been practiced. Probably the most decided result in a large proportion of cases, is produced by the application of galvanism, both central and local. The current will

Lecture in the Medico-Chirurgical Hospital.

so stimulate the vaso-motor nerves and so impress the ganglionic centers as to excite a more symmetrical distribution of the pigment. It will increase the quantity of pigment in the white patches, and diminish it in those places where it is abnormally abundant. The case of a handsome young mulatto woman now recurs to my mind. There developed upon her face such a prominent patch of vitiligo that the variation of color amounted to decided disfigurement. She was, however, completely cured by galvanism, and her skin returned to its normal appearance.

The preparations of ammonia and of mercury, eucalyptus, carbolic acid, salicylic acid, and other substances have been used as remedies. The value of any and all of the agents employed depends upon the circumstances of each case. They may cure in recent cases, or in cases of longer standing if the patient is not too old to respond to general and local treatment. Nevertheless, medication usually produces little or no change. From the age of this woman, the existence of the disease for 25 years and the absolute change in the optic nerve, it is to be feared that any method of treatment will prove hopeless in her case. As she has come to us in hope of relief, and as she lives at a distance, she shall be ordered a lotion containing 2 dr. of beta-naphthol in a pint of eucalyptus water. She shall be directed to use the lotion twice daily, having previously washed the surfaces with salicylic-acid soap.

PSORIASIS

CASE II.—This young girl, who suffers from psoriasis, was before us last week. She is now 15 years of age. When she was between three and four years old an eruption similar to the present came out on the extensor surfaces of both forearms. Since that time she has had four or five attacks. The eruption under which she now labors began about three weeks before she came to the clinic and is the worst she ever experienced. The lesions appeared first upon the back of the hands, spreading thence to the flexor and extensor surfaces of the forearms. The lesions are now more abundant upon the inner than the outer surfaces. They exist also upon the palm of each hand. There is a small patch upon her breasts, but none on the knees. The disease gives rise to much itching. The lesions consist of papules and dry, scaling patches. She has never had a decided attack of rheumatism, but has suffered from dull, aching pains since the disease of the skin began, a few weeks ago. No other cause is known.

You have lately seen a number of cases of psoriasis, and I need not, therefore, to-day enter upon any descriptive detail. The diagnosis is clear. We have here the primary lesions, the dry papules, tipped with an overlapping, whitish scale which, when detached, discloses a bleeding point. We have also many patches due to the growth and extension of the papules. These lesions are thoroughly characteristic of psoriasis, and the regions upon which they are most

abundantly developed are those most often affected. The explanation of the development of the disease in these situations above all others is that there the horny layer of the epidermis is unusually thick. Another consequence of psoriasis, less typical than the foregoing, but nevertheless frequently present, is found in this case. I refer to fissures. The disease of the integument renders it irritable, it is torn by the action of its own muscular fibers, and the result is the production of fissures, cracks, or rhagades.

The girl's tongue is coated, and where there is bad assimilation psoriasis may occur in any person. The skin is irritated by the presence of excrementitious products in the blood. The rheumatoid pains depend upon the condition of her mucous membranes and functional disorder of the liver. Under these circumstances arsenic will not be borne. It is necessary to use this remedy with great care and caution. In order to do good it must be absorbed and properly eliminated. We must, in the first place, act upon the mucous membrane. This has been done by the use of the following combination:

Mass. Hydrargyri	
Pulv. Jalapæ	
Extr. Colocynth. co.	ss 20 grn.
Ol. Menth. Pip.	1 min.
M. et ft. pil. No. xx. Sig. One pill to be given every second or third night.	

As the tongue began to clean she was given salol in 4-grn. doses three times a day. The following ointment has also been applied locally:

Acid. Salicylici	
Sulphuris Sublimat.	ss ½ dr.
Lanolin	2 dr.
Adipis Benzoat.	6 dr.
M. et ft. ungt.	

I have brought the girl before you to-day in order that you may witness the improvement which is steadily going on under this treatment. The scales are loosening, the infiltration is decreasing, the color is fading, and the itching is much less severe.

INFANTILE ECZEMA

CASE III.—The next patient is a little boy, four years of age. He has for two years been afflicted with an unsightly disease of the scalp and face. Upon the head are a number of crusted lesions. When the crusts are raised or detached a red and suppurating surface is exposed. There are papules upon the forehead and cheeks. Upon the upper lip is a crusted pustule. The disease has been attended in its course by abundant suppuration and much itching. The scabs upon the scalp have at times been very thick. The child's tongue is pale and flabby. The mother stated that similar lesions are found upon other parts of the little patient's body.

We have to do here with a variety of eczema. Early childhood is especially susceptible to attacks of this disease, on account of the delicate texture of the skin and its intimate sympathy with the condition of the digestive organs. In this case the primary condition has long ago disappeared. Infantile eczema may assume any of the forms characteristic

of the affection. It is very apt to begin upon the cheeks. The scalp is involved in most cases because of the activity of the circulation in that region, and the abundance of sebaceous glands. If, as often happens, the child is anemic and the blood is filled with excrementitious material, we have the conditions conducive to suppuration, a little pus is deposited between the layers of the epidermis—pustules form, in other words—and eventually the outer layers rupture, discharging their contents upon the surface. The pus so poured out forms crusts or scabs. When the pustules are numerous and closely aggregated, the material poured out may be sufficient to cover a large portion of the hairy scalp. The intense itching impels the sufferer to scratch and tear at the head, and the condition is thereby aggravated. To this manifestation of the disease, as it occurs in young children, the term *crusta lactea*, or milk crust, has long been applied. Notwithstanding the accumulation of the products of disease we find, upon raising the crusts, that the hairs are uninjured.

The first plan to follow in the way of local treatment in this case is to clear the surface of crusts. This is sometimes done by means of a poultice. An oil, an alkaline solution, a mixture of starch or gelatin and various emollients may be employed for this purpose. After the surface has been cleared a preparation containing the oleate of mercury may be applied to the scalp. A good formula will be:

Ungt. Hydrarg. Oleat. (20 per cent.) . . .	1 dr.
Ol. Cadini	1 dr.
Ol. Ricini	2 oz.

On account of the anemia the child will be placed upon the syrup of the iodide of iron in five-drop doses three times a day. Constitutional treatment is of conspicuous service in these cases. Attention must be paid to hygienic requirements. The child's diet must be suitably regulated according to the age. In many cases the administration of a laxative is the most efficient preliminary to treatment. Calomel, mercury with chalk, castor oil, or rhubarb is serviceably given with this object. Iron, the phosphates, or hypophosphites, potassium chlorate, and cod-liver oil are beneficial in many cases. Arsenic will seldom be of any service in patients like the one before you.

ECZEMA OF THE LIPS

CASE IV.—I now have the opportunity of showing you, in juxtaposition to the foregoing case, another form of chronic eczema, in the person of an adult. The patient, a woman, is 30 years of age. Two years ago she was scratched upon the upper lip by a baby. The spot soon became sore, the inflammation spread, and has never, to this day, subsided. Papules came out upon the lip and chin. The upper lip is now, as you can see, red, swollen, and, as I can feel, is somewhat stiff and hard. The disease gives rise to much burning and itching. These sensations, and likewise the swelling, are liable to be aggravated at times, and especially at the catamenial periods. The tumid lip has an un-

healthy aspect. The tongue is badly coated. A morbid condition of the mucous membrane has been instrumental in keeping up the disease upon the face. Again, as to the origin of this affection, there is a specie of eczema in children due to the presence of bacteria, and it is possible that in this case a scratch may have carried contamination from the child to the patient. In London there occurred in certain public institutions an endemic of eczema, or at least eczematiform dermatitis, and in these cases a microbe was found. Contagion may therefore have caused the present case, and a very intractable malady has been produced. Eczema of the lips is an unfortunate localization. The tissues are lax enough to permit considerable swelling, and the increased size of this feature is extremely noticeable and a source of much mental distress. Moreover, it may cause decided physical pain. For, in a certain proportion of cases, not only the integument, but also the mucous membrane of the lips is affected. In severe examples of the malady a sticky exudation may be poured out upon the mucous membrane and glue the lips together; this effect is particularly liable to occur at night while the patient is asleep. In other instances, from the movements of the lips fissures are produced, and these are necessarily a source of pain.

Eczema of the lip may be distinguished from herpes by its more prolonged duration. Herpes is an affair of a few days or, at most, weeks. Eczema may last, as it has in this case, for years, undergoing some improvement at times, perhaps, but very readily excited to relapse.

Eczema in this situation is to be treated according to the general principles which govern its management upon other parts of the body. It is more difficult to cure when it affects the lips, on account of their frequent movements.

In the present case, bad as it no doubt is, and of such long standing, we have, at least, no lesion of the mucous membrane of the lips to contend with, and in that respect the patient is fortunate. Her digestive functions are poorly performed, and in order to correct this failure we shall order:

Creosoti	5 min.
Pepsin. Pur.	100 grn.
Glycerini.	5 fl. oz.
M. Sig. A dessertspoonful in a little water after meals.	

Locally she shall be directed to use:

Acid Salicylici	20 grn.
Sulphuris Sublimat.	20 grn.
Acidi Carbolic.	10 min.
Camphor.	10 grn.
Ungt. Aquæ Rosæ,	
Ungt. Zinci Oxidi Benzoat.	āā ½ oz.
M., ft. ungt.—Sig. Apply to diseased surface night and morning.	

In those cases where the mucous membrane of the lips is fissured, the best plan of treatment consists in immobilizing the parts by the use of strips of adhesive plaster carried from the lips to the back of the neck.

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WILLIAM HENRY PORTER, M.D.

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SYMPHYSEOTOMY IN AMERICA.—The New York *Polyclinic* for May presents us with an excellent study of the after-effects of symphyseotomy, by Dr. EDW. A. AYERS. Since the revival of this operation under antiseptic methods, the saving of maternal life has been so markedly superior to that secured by cesarian section that it has been impossible to gainsay its advantages in suitable cases. JEWETT, in the American Text-book of Obstetrics, comparing the results of the first 72 American symphyseotomies with 79 cesarian operations, gives the maternal death-rates as 14 per cent. and 35.49 per cent., respectively, while the corresponding infant mortalities were 26 per cent. and 12.69 per cent. Hence symphyseotomy has decided advantages where the life of the mother is primarily to be considered. That under the most favorable conditions and with expert operators these figures may be largely reduced is shown by 55 symphyseotomies of the Italian school with a loss of but 3.5 per cent. of the mothers. The best cesarian record, that of Leipsic, gives a maternal mortality of 5.5 per cent.

The larger percentage of deaths among the children in pubic section as compared with the cesarian operation is, however, offset when we come to consider symphyseotomy as a substitute for crani-

otomy, where the life of every child is necessarily sacrificed, and also with the induction of premature labor, which must usually be brought on close to the period of seven months. BUDIN'S (Paris) figures, as quoted by AYERS, give the mortality of premature infants under TARNIER'S method of incubation as 63.6 per cent. at the seventh month and 85.7 per cent. at six months, results which AYERS believes are more favorable than those obtained in this country, especially as our babies have larger heads, which lessens the advantage gained by premature delivery.

Every new operation which, during its early history, is performed only as a last resort, after the mother is exhausted and forcible attempts at extraction have failed, shows a much higher mortality than it does after the indications and limitations have come to be well understood, and it is performed early as the operation of election. AYERS declares positively that under these latter favorable conditions the maternal mortality has been only a little above 2 per cent.

It has been chiefly the fear of imperfect reunion of the symphysis which has exercised the minds of conservative obstetric surgeons. Hence the statement made by AYERS, as the result of his extensive correspondence with American operators, is both gratifying and reassuring. Not a case of bad union, or union which has disabled the patient, has been reported by American operators, and he concludes that with the variety of methods pursued in obtaining union, all of which have resulted well, there must be an innate tendency in the parts of the symphysis to unite satisfactorily. Care in bandaging and supporting the pelvis, followed by a long rest in bed, seems to be efficient in producing good results.

The table of 73 cases compiled from the letters of 44 operators in Canada, the United States, and Australia, shows 44 cases as having "no motion," 19 with "slight motion," 2 with $\frac{1}{4}$ in., and 1 with $\frac{1}{2}$ in. "movement," but none with persisting defect of locomotion. Any adverse impression which might be gained at first sight from a consideration of the rather large number in which some degree of motion persists, is quickly dispelled by the quoted observations of JEWETT upon 13 parturient women. Of these only 4 showed no motion at the symphysis, while the others showed it to the extent of $\frac{1}{8}$ to $\frac{1}{4}$ in. Motion was detected in all multiparæ examined, with one exception. This physiological movement at the pubic junction, after repeated labors, corresponds apparently to the condition found in some of the lower animals.

Pain over the sacro-iliac region has, if present, been temporary in all cases. Injuries to the bladder, of which there were two instances, should be avoidable.

The conclusion is reached that when symphyseotomy is done under proper conditions we will find that the greatest danger in the operation, and the one that will always be difficult to control, lies not in sepsis, or hemorrhage, or perforating the bladder or urethra, but in the delivery of the child after separation has ensued. To this end full dilatation of the cervix should be secured before beginning to operate, inasmuch as the retraction of the cervix carries the bladder and the peritoneum up above the symphysis, out of harm's way. American symphyseotomists may well be proud of the excellent showing in this collective report.

It is to be noted, however, that the most perfect results—both immediate and ultimate—are yielded by cases where the operation is as strictly elective as the problem in the individual case admits.

FAKE CURES.—In this age, when the operative mania prevails so extensively that good old-fashioned medicine has, of necessity, taken a back seat, the desire for a record causes many a surgeon to forget that cure is not complete because the patient has been deposited alive in bed, and that statistical data are made up from ultimate cures and not on statements made before the patient has emerged from the influence of the anesthetic. It is a brilliant thing to open the abdomen and in short order deposit in a dish a tumor nearly as large as the patient, but if the case dies or remains ever thereafter an invalid the justification for the operative procedure may fail entirely. Too often are specimens shown at society meetings a few hours after operation, and the case goes on record as a wonderful one; when perhaps at the very moment that the speaker is swelling with pride before his audience at the great feat accomplished, the patient in the not distant hospital is breathing his last. Before the next meeting of the same society the surgeon, amid the turmoil of his busy life, forgets the incompleteness of the record and the case remains registered forever as a cure—true only in so far as it applies to the existence the patient may be living in another sphere. Or possibly the patient does not die, but for years afterward haunts, like a pale reproachful ghost, the consulting-room of the operator or of an unfortunate colleague who has fallen heir to the operated upon and yet uncured case. Statements like these appeal with peculiar force to every man

who has operated at all or who endeavors to derive a living from the rich legacy of cases operated upon and yet uncured. So much for expecting finite results from an indefinite science. So much for operating at all in cases where the special organs attacked are not at fault even though the symptomatology points apparently with unerring finger toward them. So much for operating in great haste instead of weighing for long the intricate problems offered by the case. So much for forgetting that there is greater glory, although less brilliancy, in avoiding the knife than there is in using it. And so much for forgetting "Thou shalt not bear false witness"—that is to say, report as cured cases which are not and cannot be so considered until months, and perhaps longer, have elapsed.

These thoughts are forced upon us by reading an article published in the New York *Polyclinic*, written by Dr. HENRY C. COE. It is entitled "Symptomatic versus Anatomical Cure after Gynecological Operations," and many of the points made will apply with equal force to operations on other than the sexual organs. In speaking of operations for the cure of uterine displacements or the repair of traumatic lesions, COE says, "The question naturally suggests itself, to one who looks beyond the operation *per se*, 'How far does it fulfill the indications in a given case, and to what extent does the symptomatic correspond with the anatomical cure? How many operators look beyond the immediate result? How many give thought to the future?'" Again, let us weigh well the following words of familiar ring, true enough, but nevertheless but little hearkened to by the wealth of operators of the present day:

"Granting that we have passed the elementary stage in surgery and assume that primary union is to be expected in every aseptic case, we are now more concerned about the ultimate, than the immediate, results of minor gynecological operations. A brief review of some of the reasons why the former do not always meet the expectations of the patient and surgeon may not be without interest. One of the most obvious is the undue importance assigned to minor pathological conditions of the pelvic organs occurring in patients whose symptoms are really due to organic or functional troubles elsewhere. "Reflex neuroses" are notoriously the excuse of the hasty operator, as well as the *bête noire* of the conscientious diagnostician. The temptation to refer distant neuralgiæ, backaches, hysteria, and all the puzzling phenomena with which we are unhappily so familiar in the neurotic women of the present day, to a laceration of the cervix, a prolapsed ovary, or a slight ante flexion, is so strong that it requires no little courage for a gynecologist to give a negative opinion, especially when he knows that some *confrère* will certainly take issue with him and promise entire relief by an operation. But, if he loses the case by his frankness, there is some compensation, not only in the approval of conscience, but in the

inevitable fulfillment of his prophecy with regard to the ultimate result of the operation. Of course we are not denying the fact that brilliant results often follow such tentative procedures, but let us at least admit that they are more or less empirical.

"The fact that menorrhagia may be due purely to general causes would seem to be an elementary statement, were it not for the fact that this symptom is almost invariably regarded as an indication for curettage, as well as the mistaken notion, entertained by many, that divulsion is the only treatment for dysmenorrhea. The readiness with which women grasp at the promise of a positive surgical cure of sterility, and the frequency with which bitter disappointment results are a sad commentary on our superficial study of this delicate and abstruse subject. We have followed too blindly our great teacher, SIMS, forgetting that he insisted on exact diagnosis as the first step in treatment. Azoöspemia in the husband is apt to be the last possibility of which we think if the wife happens to have an acute antelexion.

"The practical deduction from these fragmentary remarks is this: Pelvic pains, for which the patient consults the gynecologist, are not only complex, but their origin is often obscure. It is safe to infer that they are seldom referable to a single obvious pathological condition. Hence the operative treatment of this condition must be more or less empirical. Prolonged observation of the patient may be necessary before the true anatomical cause of the symptoms is determined. It may in many cases be wiser to insist upon a course of local and general treatment, the correction of displacements, etc., before suggesting the advisability of an operation. The exact object aimed at in the operation should be clearly explained to the patient, and especially the true relations between the anatomical and symptomatic cure. Above all, stress should be laid upon the fact that immediate benefit is the exception rather than the rule."

These and other timely warnings along the same line should be noted by young and old alike, by operator of note and by post-graduate student who, resorting to large medical centers for the acquisition of that which is new in knowledge and technique, too frequently returns home after a few weeks spent in observation, satisfied that Alexander's operation or the stitching of a kidney or the removal of a uterus amply fulfills the aim of the most advanced gynecology. There are too many teachers of many minds, too many raw recruits in the professorial ranks, too many hasty and inconsiderate operators; and the inevitable outcome is operation which fails to cure because never indicated, and teaching of a type that holds not its own in the face of real experience because of the immaturity of the minds of those who utter it as gospel truth.

ADVERTISING BY PROFESSIONAL MEN.—Apropos of the subject of advertising by medical men, which has lately agitated the minds of the medical profession on both sides of the Atlantic, and given rise to much discussion regarding the interpretation of intention of the ethical code of obligation and

honor, as to what shall be the line of demarcation and what constitute professional advertising, we note a query in the columns of the *British Medical Journal*, addressed to that organ by one of the younger members of the profession in England, who has in contemplation the publication of a medical book, parts of which are of interest to the lay reader. The writer desires to know if he may or may not send his book for review to the lay press, and advertise it for sale in non-professional newspapers, and observe the dicta imposed by medical ethics. There will undoubtedly be a decided division of opinion; but we are living in an age of progression, and, while the younger member concedes the right of a profession to have its ethical code and insist upon adherence to its principles, he is sufficiently observant to recognize that flagrant violation of the same by older and eminent members of the profession practiced with impunity destroys the spirit of justice that attaches to it and stamps the same as consulting only the freedom and right of the senior, while it forces upon the younger member a strict rule of obligation, to his detriment. That part of the profession which would announce its unqualified disapproval of advertising such a book in the non-professional newspaper, he asks to explain why "certain seniors of the profession and of the College of Physicians" (the late Sir WILLIAM JENNER, president of the Royal College of Physicians, and Sir RICHARD QUAIN, president of the General Medical Council, among others) "have, as a matter of fact, had their books extensively, not only reviewed in the lay press, but advertised for sale." The right is certainly not one that can consistently be narrowed down to a favored few who enjoy distinction in the profession and can afford to set the professional code at defiance.

A breach of professional etiquette in an older member who has achieved fame and distinction in his profession is open to pretty much the same censure as would hinge on a case of breach of military discipline. If the superior officer is fit to hold rank as such he should be a model for the subaltern. The code observed by HIPPOCRATES will not stand for all time; the liberality of thought and speech and action that is characteristic of our institutions of this day demands philosophical treatment for problems of this character instead of biased determination to adhere to principles long since modified or rendered impracticable and inoperative by the march of time; and the younger member must take the initial step if he would assert his right. By so doing he will direct the attention of the profession to the much mooted

question, and possibly stir it to unprejudiced action that may establish a precedent to the lasting comfort of equally honest and ambitious physicians that will follow him.

OXYGEN IN AURAL AND NASAL DISEASES.—Amid the flood of new remedies which have been suggested for the treatment of the diseases of the ear and nose there are undoubtedly some which will have a permanent place in our armamentarium, while others, doubtless the majority, will soon be transferred to the therapeutic lumber-room. It is agreeable, moreover, to find that old friends are sometimes the best friends, and this feeling is especially comforting when we are told that oxygen gas can be successfully employed to relieve some of the intractable cases which arise in otological and rhinological practice.

The President of the British Rhinological Association, Dr. GEORGE STOKER, has recently published his experience with this remedy in syphilitic ozena. He narrates the history of a case of five years' duration which had proved rebellious to all forms of treatment. The patient, a woman, had lost most of the internal nasal structures, turbinates, triangular cartilage, and part of the right antral wall. The oxygen treatment was at once begun. The gas was placed in a bag of the capacity of 1 cubic foot, the bag being placed between boards for the purpose of obtaining pressure, and supplied with a tube ending in an india-rubber nose-piece. The gas was inhaled every second hour during the day. A longer treatment seemed to cause headache. After one month's treatment, nothing else being done in the mean time, the patient was free from all disagreeable odor.

A second case was one of what STOKER calls "chlorotic" ozena—that is, ozena occurring in a young, anemic girl with some menstrual disorder. The disease had lasted two years, but after three days' inhalation the odor was entirely gone. The treatment was continued, warm water being used to wash out the nose. Under this régime the crust formation seemed to come to an end in 16 days.

The third case alluded to by STOKER was a girl of 14, who, from a scarlet fever seven years before, had a purulent otitis media and mastoid supuration. All during these years there had been a dark-colored, offensive discharge from the ears. Oxygen was begun and continued for about four hours a day during nine weeks. The offensive discharge and smell disappeared during the first ten days.

In discussing the value of any new treatment in

cases of this kind the author says that we must have: (1) A bad—that is, a chronic—case; (2) one in which all other forms of treatment have been tried; and (3) the treatment prescribed must be carried out thoroughly and regularly. All these requirements he considers as having been met in the cases alluded to.

As to the exact mode of action in all these cases we will all agree that a gas may penetrate where liquids and powders cannot be made safely to go; and it may be that the thorough flushing out of the diseased areas with the oxygen (which also doubtless enters into new chemical combinations with the gases there developed) removes the disagreeable smell. It has also been found that exposure of cultures to oxygen will, in the case of some of the common germs, greatly retard rapidity of development. Still again, the inhalation of oxygen so constantly would tend to improve the blood condition, and that always counts for considerable in chronic cases.

Finally, the remedy is cheap, and easily available.

MARVELS IN SURGERY AS REPORTED IN THE LAY PRESS.—Our San Francisco correspondent calls attention to the frequency with which eminent lights in the profession are performing operations which somehow or other find their way into the lay press wherein the details are magnified to such an extent that the opening of a boil takes on the semblance of most wonderful skill! The BULLETIN was criticised in its last issue for certain remarks made editorially in reference to the code question and the American Medical Association. As we go to press, a copy of the Dubuque *Daily Telegraph* reaches us containing, under date of May 30, an account of an operation performed by a *very* distinguished member of the American Medical Association. The article is entitled "Skin-grafting Extraordinary by a Chicago Physician." The very eminent man fastened the "maimed hand inside the cuticle of the stomach" and, strange to relate, the stomach refused to digest the hand, but restored the maimed member to strength and to usefulness!! Evidently matters are done against Nature in Chicago, and evidently the BULLETIN was not far astray when, in its criticised editorial, it referred to the fact that the greatest of all sinners against the code of ethics of the Am. Med. Ass were to be found within the ranks of the Ass. Perhaps, after all, the BULLETIN was more than right when it argued that the remarks of the incoming president of the Ass. *in re* the code question—particularly those which stated that anarchy and riot and lack of God accompanied a denial of this code—were only flights of rhetoric. *Verb. sap.*

GENERAL MEDICINE

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and

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Histology of Epithelioma of the Testicle.—PILLIET and CORDES (*Rev. de Chir.; Ref. Cent. f. allg. Path. u. path. Anat.*, 1896, VII, No. 3, p. 98)

Upon the basis of histological examination of eight cases of testicular tumors, the authors distinguish three types of epithelial tumors differing in genesis. The first variety are enormous tumors of hard consistency containing nut-sized cysts with slimy or gelatinous, bloody or atheromatous contents. These are called "Tératome épithéliomateux," or "Épithélioma à tissus multiples." The authors trace the origin of this form of tumor to the congenital elements of the ovary occurring at the hilus of the testicle; normally they atrophy before puberty; under pathological conditions they may grow to such teratomata of ovarian origin.

The second type are small tumors, at most goose-egg size. The fine stroma is infiltrated by innumerable small cysts with an entirely mucous contents: "Épithélioma Wolfian."

The third variety constitutes a solid tumor inclosed by testicular tissue; rarely, a hemorrhagic cyst is formed in the dense stroma. The cut surface shows yellowish, irregular areas consisting of a homogeneous tissue inclosed within an alveolus. This is the "Épithélioma seminefère."

According to the authors, the last two forms owe their origin to the persistent union of the Wolfian ducts with Pflüger's tubuli. The proliferation of one or the other of these in an abnormal position would give rise to the second and third types of epithelial tumors.

A Delicate Test for Albumin in Urine.—ADOLF JOLLES (*Hoppe-Seyler's Zeit. f. phys. Chem.*, 1895, XXI, No. 4, p. 306)

A reliable albumin test available in all cases must meet the following requirements:

The reagent must be colorless; the reaction must show traces of albumin which cannot be quantitatively estimated; its limits of delicacy must extend so far that, when the test results negatively, the presence of pathological traces of albumin may with certainty be excluded; and, finally, the effectiveness of the reagent must be independent of the composition of the urine.

According to the author, the following meets all these requirements:

Hydrarg. Bichlor. Corros.	10.00
Acid. Succinic.	20.00
Natr. Chlorat.	10.00
Aq. Destill.	500.00

Four to 5 c.c. of the previously filtered urine are acidulated with 1 c.c. of acetic acid (30 per cent.); 4 c.c. of the above solution are now added, and the whole shaken. In a second test tube 4 to 5 c.c. of urine are likewise acidulated with 1 c.c. of acetic acid to eliminate as much as possible the disturbing influence of mucin; then, instead of the reagent, the same amount of distilled water is added, *i.e.*, 4 c.c., and the whole shaken. By comparison of both test-tubes, traces of albumin which can no longer be detected by the ferrocyanide-of-potassium test can

with certainty be determined. This reaction will distinctly show albumin when present in the proportion of 1:120,000. It is therefore much more delicate than the ferrocyanide-of-potassium test. The reagent is colorless, in which respect it is superior to ferrocyanide test; it reacts the same in all urines, even in the absence of sodium chloride, and it readily shows amounts of albumin which cannot be quantitatively estimated.

By addition of acetic acid, precipitates of phosphate and ammonium compounds of mercury are prevented in urines containing carbonates. Urines containing bacteria in numbers sufficient to obscure the albumin cloud, may be tested by the contact method. Under these circumstances it is as delicate as Spiegler's test, and reacts in all instances. The test is not applicable in urines containing iodine, since a ring of iodide of mercury is formed. The latter, however, is soluble in alcohol, which is not the case with precipitates of albumin.

Experimental Phlebitis.—M. FREUDWEILER (*Virchow's Arch.*, CXLI, No. 3)

RIBBERT's experiments to produce inflammation of the vessels by injection of iodine into the arteries, were extended by the author to the veins. He observed swelling and proliferation of the fixed elements of all the coats of the vein, *viz.*: of the endothelial cells of the intima, of the muscle and connective-tissue cells and lymph-vessel endothelia of the media, and, finally, of the elements of the adventitia. The proliferation and swelling of the intima endothelia he believes to be directly caused by contact with the injected iodine; on the other hand, an inflammatory process accompanied by exudation and small-celled infiltration extends from without inward to the media and intima.

The Distribution of Iron in Animal and Vegetable Cells.—R. H. CHITTENDEN (*The Diet. and Hygien. Gaz.*, XII, 1896)

In the higher forms of animal life the greater part of the assimilated iron in the cells is held in the chromatin in the nucleus. The chromatin fibrillæ, the chromatin granules, and the nodal points of the chromatin network all exhibit the clearest evidence of the presence of iron, according to MACALLUM. The same distribution holds good for the nuclei of all the higher vegetable organisms. In the cytoplasm of animal cells, the presence of assimilated iron is the exception and not the rule, although the exceptions are somewhat noteworthy; *e.g.*, the hemoglobin and hematin of the blood, the hemato-blasts of vertebrates, the enzyme-forming gland-cells of most animals, and yolk-holding ova. In the latter cases, however, with the exception of hematin and hemoglobin, the iron may still exist in combination with chromatin, for it is well known nucleoproteids are to be found, to a certain extent, in the cytoplasm of cells as well as in the caryoplasm.

According to MACALLUM the hemoglobin of the red corpuscles and the analogous compound in muscular fibers are formed from iron containing chromatin. The only difference between them is that the pigment of the muscular fibers does not, in its evolution in the developing ovum, comprehend a stage of nuclear chromatin.

The only exceptions to the rule that glandular secretion is associated with the presence of an iron-holding cytoplasm, the author has found to be in the mucous glands of the skin of amphibia, and in the renal tubules of vertebrates generally. In the protozoa the presence of assimilated

lated iron in the cytoplasm seems to be a constant feature. The iron is not confined to any one part of the cell, but uniformly distributed through it, and he goes on to say that there is a probability that this cytoplasmic iron-holding compound is also associated with the secretion of ferments functioning in the digestion of the ingested food.

From this article it is very evident that the so-called chromatin of animal and vegetable cells is an iron-containing substance; and also equally evident that chromatin does not have a constant and definite chemical composition, although nuclein is its main constituent. But nucleins are variable in composition, and consequently the chromatins present in various glandular organs will show variable reactions dependent upon the exact nature of the contained nuclein. The iron of the chromatin is undoubtedly a part of the nuclein or of the nucleic acid, although it is difficult to say how the iron is disposed in the molecular structure of the nuclein.

The conditions known as anemia and chlorosis in the higher vertebrates must now be referred to a deficient supply of the primary iron-containing compound, chromatin, not only in the hematoblast, but in all the cells of the body.

The Hygienic Significance of the House Fungus.

—GOTSCHLICH (*Zeit. f. Hyg. u. Infekth.*, XX, No. 3; ref. in *Cent. f. inn. Med.*, 1896, No. 16, p. 409)

The opinions regarding the infectious properties of the house fungus have been very much at variance. While the literature collected by the author brings forward a few examples which speak in favor of such a possibility, it does not give any positive evidence of such action. For this reason the author determined to decide this question by experimental means.

In animal experiments the house fungus was without effect in mice, dogs, rabbits, and guinea-pigs. From the very beginning the conditions under which the plant lives exclude the possibility of infection, since the author's experiments showed that the fungus is scarcely capable of growing and multiplying at a temperature over 30° C.

Consequently, this fungus, so injurious to the woodwork of dwellings, is probably not pathogenic in man. Nevertheless, its presence in dwellings is often an indication of hygienic irregularities which it were well to correct.

The Exchange of Fluid between the Blood and Tissues.—J. B. LEATHES (*Jour. of Physiol.*, 1895, XIX, Nos. 1 and 2, pp. 1-14)

A brief summary of the main points indicated by the author's experiments may be given as follows:

1. Changes in the osmotic pressure of the blood are compensated with extreme rapidity by the transfer of fluid from tissues to blood, or from blood to tissues, when the kidneys are excluded from the circulation.

2. There is no evidence that the vessel-walls play other than the part of a passive membrane in this interchange of fluids. They cannot be said to have the power of activity regulating the composition of the circulating blood.

3. The osmotic pressure of the lymph from the thoracic duct is always slightly above that of the blood. This slight difference is not affected by alterations in the osmotic pressure of the blood, and is more easily accounted for by metabolism in the tissues, than by any active function of the vessel walls.

NEUROLOGY AND PSYCHIATRY

Department Editor
PEARCE BAILEY, M.D.

Collaborators

ALBERT WARREN FERRIS, M.D., LEWIS A. CONNER, M.D.,
THOMAS PECK PROUT, M.D., and L. PIERCE CLARK, M.D.

The Causation of General Paralysis.—HIRSCHL (*Neurolog. Centblt.*, No. 21, p. 947)

The writer examined the records of 200 male cases treated at KRAFFT-EBING's clinic, 175 of which furnished satisfactory information. Of these, 56 per cent. surely, and 25 per cent. probably, had had syphilis; in 19 per cent. the evidences of preceding syphilis were not conclusive. In these latter there was an absence of any recognizable etiological factors, and the author adds that, in his experience, but 54 per cent. of the cases of late syphilis give a definite syphilitic history, which leads him to believe that general paralysis is always of specific origin.

Spontaneous Evocation of Verbal Auditory Images in Persons Affected with Motor Aphasia.

—THOMAS and CH. ROUX (*Med. Week*, III, No. 47, p. 559)

The impossibility of spontaneously evoking verbal auditory images in persons affected with motor aphasia explains the absence of speech, but does not explain the inability to repeat words or read aloud. The absence of the stimulus of a verbal auditory image seems to be lacking, rather than the power of making articulatory movements. The authors experimented on a case of motor aphasia in a woman, of 15 years' duration, by the systematic use of visual explanation of the movements of articulation. In a few days she was able to repeat almost any syllable and some words. Her verbal motor associations, acquired before the aphasia developed, still persisted. After a month's daily practice, she had recovered the ability of repeating any word she heard, re-establishing an association between the word heard and the movement she found through sight was necessary for its pronunciation. Later, by systematic exercises in writing and reading aloud, new associations were formed between the spoken word and its visual image. Her mental condition improved, as well as her speech. This method is therefore valuable for curing aphasia as well as for experiment. FÉRÉ has shown that in every case of motor aphasia there are also disturbances in the general motor system. Speech can therefore be greatly improved by educating the tongue to execute its movements.

Occurrence of Pulmonary Tuberculosis in the Subjects of Alcoholic Neuritis.—T. N. KELYNACK (*Med. Chronicle*, IV, No. 3, p. 180)

Eight fatal cases of alcoholic paralysis were examined, and in no less than seven pulmonary tuberculosis was found, giving a percentage of over 87. All the cases were in females. In only one case were there distinct tubercular lesions elsewhere than in the lungs. In one case there was an old tubercular patch at the apex, but here it was doubtful if infection was not from without rather than from this "latent" or so-called "healed" focus. In five cases both lungs were more or less involved. In two the left was the only one showing any distinct tuberculous process. The duration of the tuberculous process, judging from the history and the char-

acter of the lesions, appears to have been short in at least three of the cases. In four it seems to have lasted for several months. One is stated to have "spat blood" six months before her death. Another had had "cough for some time." In one case the infection was evidently recent, and one lung only was studded with small tubercles. In two there was more or less extensive caseous pneumonia. Four presented evidences of softening and cavitation. In two of these four the lungs were also the seat of considerable fibrosis.

The evidence of these few cases tends to show that the conditions met with in chronic alcoholism, at least in the form of "alcoholic neuritis," may strongly predispose to pulmonary tuberculosis of a progressive and fatal character.

Acroparesthesia.—GILBERT BALLET (*Med. Week*, 1895, III, No. 47, p. 553)

BALLET presented a typical case in a woman aged 48, at the St. Antoine Hospital. No noteworthy family or previous history, except severe pain in left knee at age of 40, which kept her in bed and necessitated blistering. A year later she began to have numbness of the fingers, particularly of the right hand at night, which always awakened her. On arising all prickling and formication ceased. After a few months a feeling of swelling or tension persisted in the hands on awaking. Soon numbness in the legs, especially the right, occurred in the day when she sat, subsiding when she stood or walked. Three years later her fingers remained clumsy, as if swollen during the day; she was unable to hold a needle, to wash or sew; her lips and tongue were numb and stiff on awaking in the morning. Three years later still her symptoms were less marked and less continuous. At no time was there disturbance of circulation, change of color, or of temperature of the skin; pressure on the nerve trunks (as the median or ulnar) produced no local sensation of pain, though aggravating existing numbness.

The disease is found oftener in females, after the age of 30; chilling, certain chemicals (as sal ammoniac), fatigue and impaired digestion, have been assigned as possible causes. More often found in the domain of the median nerve, it rarely begins in the feet; it may also affect the lips and tongue. It may gradually invade the forearms and the legs. The extremities are sometimes livid or purple from cold. Hyperesthesia is very rarely present in the fingers. Hypochondria may be a superadded condition, due to the disability and loss of sleep.

Acroparesthesia is not a disease of the central nervous system. SCHULTZE questions whether the disease is due to inflammation of the connective tissue of the nerves, or rather to swelling of Renaut's corpuscles, which are so numerous in the brachial plexus and the peripheral nerve trunks, especially in women of middle or advanced age (TRZEBINSKI).

Acroparesthesia lasts for years with spontaneous improvement. Phosphorus, bromides, ergotine, and electricity have little effect. Quinine, phenacetin, antipyrine, relieve the night attacks (BERNHARDT). BALLET uses with some success douches of sulphurous water on the limbs 3 or 4 times a week, and daily friction with flannel dipped in tannin ointment.

A Civil-service Position.—On June 15 the New York city Civil-service Boards will hold an examination at 10 a.m., for the position of Assistant Resident Physician, Board of Health. Citizens of the United States, holding the degree of M.D., are eligible to above examination. S. William Briscoe, secretary, New Criminal Court Building, New York city.

MATERIA MEDICA

Department Editor

WILLIAM FANKHAUSER, M.D.

Mercurous Silicofluoride.—HALLION, LEFRANC, and POUPINEL (*L'Union pharm.*, 1896, XXXVII, p. 113)

Mercurous silicofluoride has been recommended by the authors before the Biological Society of Paris as an active antiseptic for wounds, abscesses, eczema, etc. It is said to possess twice the bactericidal power of corrosive sublimate, while being much less poisonous. It is best used in 1 : 1000 aqueous solution, or in 1 : 2000 ointment.

It should be observed that there are two silicofluorides of mercury:

The *mercurous*, $\text{Hg}_2\text{SiF}_6 \cdot 2\text{H}_2\text{O}$, is obtained by digesting freshly precipitated Hg_2O or Hg_2CO_3 in H_2SiF_6 ; it occurs as prismatic, vitreous crystals. This is the salt referred to above.

The *mercuric* salt, $\text{HgSiF}_6 \cdot \text{HgO} \cdot 3\text{H}_2\text{O}$, is obtained by evaporating a solution of HgO in H_2SiF_6 ; it is in the form of small, pale-yellow needles, which partly decompose when dissolved in water.

Sphygmogenine.—FRÄNKEL (*Pharm Ztg.*, 1896, XLI, p. 195)

This name has been given to a new substance which Dr. F. has isolated from the suprarenal capsule.

It has not been obtained in a state of purity as yet, although giving a number of characteristic reactions. It is believed to be the substance in the suprarenal capsule causing increase of arterial pressure.

Sphygmogenine is not identical with neurine or pyrocatechin, two substances previously obtained from the same organ.

Besides these principles FRAENKEL has obtained a number of others, of physiological value, from the same source; but he gives no particular information concerning same.

Séribèle.—HECKEL and SCHLAGDENHAUFFEN (*Pharm Jour.*, 1896, p. 243)

"Séribèle" is the name of a new tenifuge from French Guinea, recently described by the authors. It consists of the seeds and root-bark of *Connarus Africanus*.

The native name of séribèle ("red medicine") indicates the color of the seeds. These are about one inch long and one-third of an inch in diameter, and in shape resemble a kidney bean; for about one-third of their length they are enveloped in a red, fleshy arillus. In Conakry and the greater part of French Guinea the seeds are employed, while in Bramaya the root-bark only is used.

Dr. MACLAND, chief of the Service de Santé, at Conakry, reports that in four cases its use was followed by success, the dose employed being 60 gme. of the ground seeds, given in the form of decoction, in a glass of warm water.

Dr. DREVON administered a smaller dose, of 25 gme., which, after macerating for 12 hours, was given with the water in which it had been macerated. In three cases out of five, the head of the tapeworm was passed. A dose of brandy usually followed the administration of the drug, which was given after fasting.

A chemical examination of the drug by the writ-

ers revealed no special active principle. It contains about 5 per cent. of tannin, affording a dark-blue coloration, with ferric chloride, a neutral fat, an orange coloring-matter which adheres very persistently to the fat, and crystalline fatty acids consisting of three parts of stearic to one part of palmitic acid.

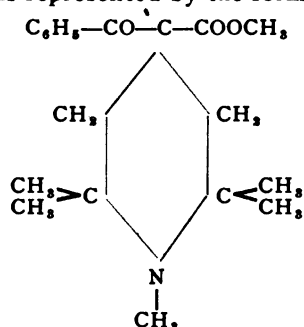
The coloring-matter seems to be a compound consisting of a rose and of a yellow substance.

The constituents of the root-bark are similar, but the crystalline fatty acids are absent.

Little is known of the plants of this family, except that a few possess poisonous properties.

Eucaïne, a Local Anesthetic.—C. L. SCHLEICH

A new local anesthetic under the name of "eucaïne" has lately been introduced to the medical profession. In its effects it is said to be almost as powerful as cocaine, and to lack the toxicity and the danger which attend the use of the latter. Chemically, eucaïne is described as "methyl ether of a benzoylated oxypiperidinecarbonic acid," and its constitution is represented by the formula:



Eucaïne is almost insoluble in water, but forms an easily soluble *hydrochlorate*, which will be the salt most generally used, unlike cocaine hydrochlorate, does not decompose when boiled with water, and that its solution remains perfectly clear, and does not become flocculent, but requires neither carbolic nor salicylic acid as a preservative.

Eucaïne hydrochlorate has been used by Dr. C. L. SCHLEICH and others with splendid results, it is reported. It was applied as a paint (on mucous membranes), or by injecting into the vicinity to be operated on in 1:6 1-2 aqueous solution. The area of anesthesia is said to be more extensive and to last longer than when cocaine is used.

Mescal Buttons Therapeutically.—D. W. PRENTISS and F. P. MORGAN (*Ther. Gaz.*, 1896, XX, p. 4)

The results of investigations carried on by the authors to ascertain the physiological action of mescal buttons (*Anhalonium Lewinii*) upon man seem to show that this drug is possessed of sedative and antispasmodic properties which may render it of great therapeutical value.

Taken in sufficient doses to cause intoxication it produced visions, etc. (the predominating feature of which were color effects), partial anesthesia of the skin, loss of sense of time, dilatation of the pupil (persisting for from twelve to twenty-four hours, accompanied by slight loss of the power of accommodation), and more or less depression of the muscular system (which seemed to be due to depression of the nervous system, and not of the muscular fibers themselves). The heart was but little affected, and the respiration remained unaffected in all cases except one, in which it seemed to partake slightly of the general muscular depression. Upon the stomach the drug produced an effect which varied

from a feeling of uneasiness and fullness at intervals to nausea and vomiting. Inability to sleep, for at least twelve hours after the effects of the drug commenced to pass off, was a marked effect.

The authors have received a communication from a gentleman in a Western State relating his experience in the use of the drug in certain affections, which shows that the beneficial action of the drug in the conditions mentioned is directly in accordance with what might be expected from its physiological action. This correspondent states that one teaspoonful of a tincture made by macerating $\frac{1}{4}$ lb. of buttons (the hairy center being removed) in 2 pts. of diluted alcohol always brought relief in cramps and gripings, and stopped the pain, until the influence wore off. In one patient, who could not take opium in any form, it allayed all pain in 10 minutes. A few drops of the tincture on sugar, or a small piece of the resinous part in the center of the button, the writer stated, always instantly stopped tickling in the throat. The latter also mentions a case of softening of the brain, in which opium and morphine had been used for four days in an attempt to quiet the patient, but without success, when a few doses of the tincture of mescal buttons brought about sleep lasting $8\frac{1}{2}$ hours. He has also used it for nervous headaches and found it always to give relief.

The authors state that the conditions in which it seems probable that the use of mescal buttons will produce beneficial results are as follows: In general "nervousness," nervous headache; nervous, irritable cough; abdominal pain, due to colic or griping of the intestines; hysterical manifestations, and in other similar affections where an anti-spasmodic is indicated, as a cerebral stimulant in depressed conditions of the mind—hypochondriasis, melancholia, and allied conditions; as a substitute for opium and chloral in conditions of great nervous irritability, or restlessness, active delirium and mania, and in insomnia caused by pain, and in color-blindness.

The dose of the powdered drug they put at from 8 to 15 grn. (0.5 to 1 gme.); of the tincture (10 per cent.), 1 to 2 teaspoonfuls; and of the fluid extract, 10 to 15 min. (0.6 to 1 c.c.) The liquid preparations are best administered in some suitable vehicle, such as a mixture of fluid extract of licorice, and elixir of yerba santa; and the powdered drug, preferably, in wafers, cachets, or capsules.

Guaiacol Carbonate in Typhoid Fever.—S. FRÄNKEL (*Wien. med. Blät.*, 1896, Feb. 27)

Recent and exhaustive investigations concerning the conditions governing the absorption and excretion of guaiacol carbonate in typhoid fever show: its perfect indifference to mucous membranes; its absolute non-poisonousness, as much as 6 gme. (90 grn.) being given phthisical patients daily without causing any symptoms of intoxication; that only putrefactive processes decompose and render it absorbable in the gastro-intestinal canal, and directly in proportion to their intensity; that it responds to the necessities of the canal quite independently of the dose; that it appears to be more thoroughly used up, the smaller and more frequent the dose; that it has no influence on the temperature of typhoid fever in the absence of antipyretics, but, given with antipyrine, causes a fall with greater rapidity and certainty than when antipyrine is given alone, and is of good prognostic significance; and that, when given early, it was frequently unnecessary to treat the fever at all, and the disease ran a mild and rapid course.

SURGERY

OPHTHALMOLOGY, OTOTOLOGY, RHINOLOGY,
LARYNGOLOGY, DERMATOLOGY, ORTHO-
PEDIC AND GENITO-URINARY SURGERY

Department Editor
SAMUEL LLOYD, M.D.

GENERAL

In charge of B. FARQUHAR CURTIS, M.D., WILLIAM B.
COLEY, M.D., E. M. FOOTE, M.D.

Results of the Operative Treatment of Tubercular Peritonitis.—J. ISRAEL (*Deutsche med. Wochenschr.*, 1895, No. 1)

The author operated upon four cases—all cured. Three were children 4 to 7 years old, one a girl of 20. In the first three cases the diagnosis was made before the operation, and afterward corroborated by microscopic examinations. All three were operated upon at an early stage of the disease. They had high temperatures of the hectic type, and had an extensively distributed nodular eruption of the peritoneum; with a few tablespoonfuls of fluid exudation. In these three cases, before closing the incision, 10–30 gme. of 10-per-cent. iodoform oil was poured into the abdominal cavity. Short histories of these cases are given.

The following conclusions may be drawn from the above cases: Cure of tubercular peritonitis by laparotomy cannot be explained by evacuation of ascitic fluid, for in the first two cases no fluid at all was withdrawn, while in the third case only 200 c.c. of ascitic fluid were found. In spite of the presence of a tubercular ulceration of the intestines, within 36 days after the operation the tubercular nodules, even those as large as cherries, may have disappeared. High temperature is no bar to the performance of laparotomy. This is contrary to the views of French authorities.

The fourth case was one of tubercular tumor of the ascending colon, and marked tuberculosis of the peritoneum. On account of the marked tubercular eruption of the abdominal cavity extirpation was not performed. Anastomosis between ileum and colon was established. After the introduction of 40 gme. of 10-per-cent. iodoform oil, the abdominal wound was closed. The patient improved, was relieved from all symptoms, and rapidly gained in weight. The tumor diminished to a very marked extent. Seven months have elapsed since the operation.

The Murphy Button in Germany.—GRAFF (*Arch. f. klin. Chir.*, 1896, p. 251)

Murphy's ingenious button, which has given such satisfactory results in America, has met with little favor among continental writers who have exerted themselves to find some possible disadvantage connected with its use. It is a pleasure, therefore, to read a German article whose author frankly acknowledges the good points of the invention. And small wonder!

By its use SCHEDE, of Hamburg, and his assistants were able to obtain results in twenty-five cases which they could not have hoped for had suture been employed. Five of the operations were gastro-enterostomies for benign causes;—all of the patients recovered. The same operation upon nine patients with carcinoma of the pylorus was followed by death in six cases; of six cases of carcinoma of

the large intestine, three recovered; of four cases of strangulated gangrenous hernia, two recovered. In all these cases intestinal resection was performed. In a patient who sustained several wounds of the small intestine from a stab, 64 cm. of ileum were resected and the ends united by Murphy's button. Recovery followed.

The length of time a Murphy's button is retained has given rise to considerable discussion, and it is interesting to notice that, although fourteen patients recovered, only seven of them passed buttons, as far as could be ascertained. The period varied from twelve to thirty-four days.

ORTHOPEDIC

In charge of T. HALSTED MYERS, M.D.

Children's Spines.—OWEN (*Pediatrics*, No. 5, p. 193)

The chief feature of the spine in the healthy child is its suppleness. As the child increases in years and stature, the freedom of movement diminishes and the spine becomes endowed with greater strength. We have no fixed normal standards with which the movement of a spine may be compared. Occasionally, after spending considerable time and care in the examination of a child's spine, one is unable to say definitely whether it was in a state of early caries or not. But OWEN always gave the child the benefit of the doubt in such a case, and insisted on the horizontal position and perfect rest of the spine until the equivocal symptoms disappeared. OWEN says he has never met with growing pains, and would very much like to know what they are. Aches and pains distributed on both sides of the body, or in both arms or legs, even if they are apparently very slight, should at once direct attention to the spinal column.

Chronic inflammation of the vertebræ is always of tuberculous origin. The bone tissue is prepared for the cultivation of the tubercle bacilli by heredity or environment; then some blow or strain lowers the vitality of the part and enables the bacilli to secure a foothold. In the dorsal region a very small amount of collapse of the vertebral bodies gives rise to an unmistakable projection of the spinous processes. The first effect in the cervical and lumbar regions, on the contrary, is the obliteration of the normal concavities in these regions. Sometimes the collapse of the vertebræ takes place on one side of the middle line, and a lateral deviation also occurs.

In the examination of a child with suspected spinal disease he must be placed, entirely nude, on a firm, flat surface, so that every defect or deformity, abscess or irregularity, is brought into notice.

The author calls attention to FLANDRIN's "Bather" at the Louvre, as showing well the normal flexibility of the spine, and in making his diagnosis he makes this one of his test positions. In this painting the boy sits with hands clasped over his knees, which are drawn up, his head resting upon them, and his back, from sacrum to occiput, presents a most beautiful curve.

The test of striking the soles of the feet as the boy lies supine the author strongly condemns. The boy would probably wince if he had disease of the ankle, hip, or sacro-iliac joint, as much as he would if he had spinal caries. Flinching caused by placing a hot sponge in the groove corresponding to the spinous processes is also fallacious, as is tapping with the knuckle along the middle of the back. A healthy child often will flinch under these tests.

The author applies gently increasing pressure to the top of the child's head as he stands or sits erect. If the child's face is watched, no harm can be done. The child frowns or winces as soon as any disturbance is caused in the inflamed segment of the spine. The extension movements of the doubtful spine should also be observed.

Another test is to see how one vertebra rotates and inclines itself upon another throughout the extent of the spine. While the pelvis is held from behind and fixed with both hands, the boy is then told to turn and look at the surgeon. This is a very delicate test.

The treatment may be well defined by the single word *rest*. The child must be kept in the horizontal position to avoid superincumbent weight pressure. He may be carried about or raised obliquely so that he can see what is going on about him if he is secured in some apparatus. Until the disease is not only quiescent, but, so far as one can tell, until the carious region is actually undergoing consolidation, the question of applying a splint and letting the boy get about should not be considered. When this stage is reached a rigid splint is applied. The author prefers a leather one extending from the front and back of the chest and from the shoulders, shoving up and fixing the occiput and chin if the disease is in the cervical or cervico-dorsal region. In this location also considerable help may be obtained by exerting a few pounds of traction on the head by weight and pulley. Better rest is thus secured. There is no separation of the inflamed vertebrae.

For the dorsal and lumbar region nothing answers so well as the poroplastic felt jacket, taking its bearings from the pelvic bones, reaching almost to trochanters and extending up into the arm-pits, and worn permanently. OWEN thinks steel braces the most unsatisfactory of all supports. He does not see how the superincumbent weight can be thrown upon the transverse processes, and calls this treatment an anatomical theory.

For the economical and convenient treatment of caries in the lumbar and in the lower two-thirds of the dorsal region the plaster-of-paris jackets are very good, but for regions above this they are quite unsatisfactory. The jury-mast he discarded after a full test. The movement which it was designed to permit is just what ought to be prevented.

In the treatment of tuberculous abscesses, he has discarded the aspirator as disappointing or useless. He lays these abscesses open, clearing away their lining of tuberculous granulation tissue, washing the cavity clean with a hot germicidal lotion, drying it, sewing up the incision, and applying pressure by means of bulky pads. Many heal at once. Some need packing, but the drainage-tube is to be avoided.

OWEN says he has, after a long experience, no good opinion of laminectomy for the paraplegia occurring with Pott's disease, although when discussing the matter with younger surgeons he sometimes feels compelled to take almost an apologetic attitude. He reports briefly two cases in which he refused to operate, although complete motor and sensory paralysis had existed for months. Both recovered.

The feeble spine of the rickety child, he thinks, should not be supported by braces, but believes the child should be prevented from sitting up and standing most of the time. He says, Take care of the child, and the spine will take care of itself. Fresh air, wholesome food, and massage are indicated.

The effect of the modern educational pressure is counterbalanced by the better physical instruction

also given. He has, in a few instances, taken weedy girls with "unhealthy" spines absolutely from work and allowed them to run wild in the country.

The author thinks it is a dangerous habit to take too special, too narrow a view of the defects and deflections of a child's backbone. For instance, a child is thin and poor in appearance, and its backbone, like the rest of the child, is a little feeble. Such a case, he says, certainly does not need special spinal treatment. Again, a child 4 years of age, brought up on one or all of the artificial foods, does not sit up straight, its back is weak and bent. Mr. OWEN believes these cases should consult the general practitioner rather than the specialist. He thinks far too much fuss is being made about a little lateral bending, which is so often met with in the back of a growing girl or boy, the spine being as flexible in every direction as a healthy child's spine should be.

A spine is sometimes found to be "growing out," or a little different from the backs of other children; the child is well, happy, and contented; the doctor may feel sure that there is nothing very serious the matter before he sees the spine. The movements of the back he finds are free, he disregards the trifling deviation, and can cheerily say the back is all right. Again, a schoolgirl, 14 years of age, has backache, and sits awkwardly habitually. Her spine moves freely and painlessly in every direction, but still she complains and lolls. It is the owner of the spine, not the spine, that is out of health. It is the worst thing possible for this girl to regard this as a spinal affection. This girl should not sit or stand too much nor study too much. She should be kept in the open air, away from town life. She should play tennis, golf, ride, etc. OWEN has seen plenty of growing girls with these "otherwise" spines positively grow out of their temporary weakness.

One of the concluding sentences of this paper reads: "It is dealing unfairly with our profession as well as with our patients if we do not loyally set ourselves against everything which in the least degree even approaches that which might appear to be the opposite to square conduct and upright intentions." This sentence explains the tone of the last five or six pages of the article.

[The class of cases which Mr. OWEN calls "otherwise spines" includes all incipient cases of rotary lateral curvature. Recent researches have demonstrated that these curvatures commence in childhood at a very much earlier age, therefore, than was formerly believed. The detection of slight, the first, restrictions to normal motion of the spine is not easy without experience, especially in young children. Cases of lateral curvature put under treatment in their incipient stages can, in the great majority of cases, be cured. After the deformity is fixed, especially the rotation, a cure can seldom be perfected. A great many cases of rotary lateral curvature first come under treatment only when marked deformity is already present, and a perfect cure impossible. Considering these facts it seems as if Mr. OWEN had given very unsafe advice on this subject, and contrary to our ideas. It would be much better if very much more attention was paid to the early deviations of the spine rather than less. It would be well if all school children could be periodically examined, and means adopted to remedy any defects found. Even granting that a few spines would receive treat-

ment which was not absolutely necessary, much better so than that so many should remain untreated until permanently deformed.—ED.]

NOSE AND THROAT

In charge of JAMES E. NEWCOMB, M. D.

Bacteriology of Lacunar Tonsillitis.—MEYER (*Rev. heb. de Laryngol.*, 1895, XVII, p. 179)

In a paper read before the Berlin Society of Laryngology the author stated that the secretion from non-inflamed tonsils ordinarily contained a coccus very analogous to the streptococcus pyogenes, a small microbe often arranged in pairs, staphylococci, and leptothrix growths.

In 55 cases of inflammation of the tonsils, the results of bacteriological examination were as follows: In 14, staphylococci—generally *S. aureus*; in 24, a mixture of staphylococci and streptococci; in 15, streptococci in pure culture. The latter he believed to be, in the greater number of cases, the true exciting cause of the local trouble. Its absence in numerous cases must be attributed to its great susceptibility to alterations in the nutritive media used for cultures. Since MEYER has used a certain culture medium he has never failed to find this germ.

If, during the first hours of an angina, one finds only staphylococci, this is perhaps due to the immigration of the streptococci into the mucous membrane and to the very rapid development of the staphylococci. There is no difference in the clinical manifestations of these two microbes. MEYER has never discerned pneumococci, though frequently diplococci have been found.

Nodular Laryngitis of Infants.—MOURE (*Rev. heb. de Laryngol.*, XVII, p. 145)

M. believes that the so-called "singer's nodes" occur more frequently in small than in large larynges. They are present most frequently in tenors, are rare in baritones, and very rare in basses. MOURE believes that such vocal alterations occur by preference in persons who endeavor to speak much or sing in a low register when they are naturally endowed with soprano or tenor voices.

He then passes to consider the etiology of the hoarseness observed in children from six to ten years old. Their voice is frequently hoarse, bitonal, or whispering, as in ordinary acute catarrhal conditions, but this impairment may persist for weeks and even months. Examination shows that there is a general redness and lack of luster of the cords. The emission of head and falsetto tones, usually so easy in children, is impossible. The cords do not touch, except at one point at their anterior third, where there is a projecting point on each side, so that there are practically two elliptical rimæ glottides, a small one anteriorly and a larger one posteriorly. Such a condition explains the hoarseness found in such children. The points may be of equal size on both cords, or one may be larger than the other.

It is believed by the author that such a condition arises from over-use of the voice in the various vocal and singing exercises of early school life, particularly in chorus-singing, where, in order to bring out the harmony of the requisite musical parts, some children are assigned to sing in registers below their normal tone. The mode of production of the cord lesion is therefore the same as in older persons.

Treatment must, of course, be begun by avoiding the evil referred to—that of having a child sing out of its natural register. After the damage is

once done it is difficult to effect a complete removal of the offending nodosities. Rest, applications of chloride of zinc 1:50, electricity, etc., will often fail, and the hoarseness frequently persists until the natural change comes in the voice at the age of puberty.

Experimental Researches upon the Physio-Pathology of the Inferior Laryngeal Nerve.—TRIFILETTI (*Archiv. Ital. di Laryngol.*, XV, p. 105)

The author makes in this article a contribution to the study of one of the most vexed questions in laryngology. He draws the following conclusions:

1. In the dog, the recurrent nerve, if submitted to the ordinary conditions of electrical experimentation—anesthesia and the use of a moderate current with slow rhythm—shows itself to be a motor nerve. By stimulating the unsevered trunk or its peripheral branch (if cut) there is first a tendency of the corresponding cord to approximate the median line; if the central branch is stimulated, there is no movement of the cord; on continuing the stimulus, the edge of the cord assumes the so-called cadaveric position.

2. The same results ensue upon stimulating the intact or severed nerves after the animal has been killed in chloroform narcosis.

3. Under these same experimental conditions a corresponding effect follows the stimulation of that branch of the superior laryngeal nerve which supplies the crico-thyroid muscle.

4. The recurrences in animals not subjected to ordinary experimental conditions (*i.e.*, without anesthesia and especially with a current of variable intensity and slow rhythm) behave somewhat differently, viz.:

(a) If the intact nerve or its central stump (if severed) be stimulated, the cords tend to approach, but immediately withdraw from the median line, especially the cord corresponding to the nerve stimulated (abduction); while there is accompanying such movement a reflex respiratory disturbance in the form of a forced inspiration, followed by an instantaneous and noisy expiration.

(b) If the peripheral branch be stimulated there is, on the contrary, a tonic contraction of the cord (adduction).

Primary Tracheal Perichondritis.—POLYAK (*Rev. heb. de Laryngol.*, 1895, XVII, p. 162)

The patient, a man aged 44, had felt pain in deglutition for 14 days, after which, in a severe coughing spell, he felt a cutting sensation in the throat and expelled a mouthful of bloody pus, after which the pains ceased. A tumor was then developed on the neck, extending from the cricoid cartilage to the fourth ring of the trachea and bounded laterally by a line drawn vertically from the external point of the hyoid bone. The skin covering it was of a normal color save at the top, where it was a little reddened. The tumor was hard, with an indistinct sense of fluctuation at its summit.

The larynx revealed a diffuse catarrh, while the trachea showed a prominence of the anterior wall, corresponding in area to the outside swelling, covered with a reddish-purple mucous membrane with a central depression.

A diagnosis of perichondritis of the cricoid was made, but its nature could not be determined, as the lungs gave no abnormal signs. No bacilli were found in the sputa, and pus drawn from the top of the external swelling gave, when examined bacteriologically, indecisive evidence. There were no

evidences of syphilis, and a diagnosis was finally made of primary tubercular perichondritis.

The swelling was finally incised, and about $\frac{1}{2}$ gme. of pus evacuated. The prominence in the trachea immediately disappeared. Recovery was uneventful, but slow.

OBSTETRICS; GYNECOLOGY; PEDIATRICS

Department Editor

THOMAS S. SOUTHWORTH, M.D.

Collaborators

GEORGE G. WARD, Jr., M.D., GEORGE R. WHITE, M.D.,
EDWARD N. LIELL, M.D., WILLIAM B. NOYES, M.D.

Contribution to the Pathological Anatomy of Puerperal Eclampsia.—PELS LEUSDEN (*Virchow's Arch.*, CXLII, No. 1, from *Centralbl. f. Gyn.*, No. 8, 1896)

The author has made careful histological examinations of all the organs in two fatal cases of puerperal eclampsia. The section in the first case showed chronic interstitial nephritis and atrophy of the right kidney. Hypertrophy of the superior portion and granular atrophy of the inferior part of the left kidney. Recent glomerular nephritis and parenchymatous nephritis of the left kidney. Double ureters and double pelvis existed in the kidney on both sides. Multiple, circumscribed, partly necrotic, partly hemorrhagic areas in the liver. Hypertrophy of both ventricles of the heart. Double-sided lobar pneumonia, with edema and atelectasis of the lower lobes of the lungs. Slight fibrinous pleurisy. Small colloid struma. Osteophyton gravidarum. Edema of the pia and brain.

Section of the second case gave: Recent diffuse nephritis with parenchymatous degeneration; lobular pneumonia; slight pleurisy with pulmonary edema; small colloid struma; osteophyton gravidarum; edema and punctate hemorrhages of the brain.

The microscopic examination showed most important pathological changes in the kidneys, and the author is inclined to the view that eclampsia is due to uremia.

He draws the following conclusions from his investigations:

1. There is no evidence that eclampsia is an infectious (bacterial) disease. (No culture experiments were made!)
2. The cause of eclampsia is more probably a toxic substance circulating in the blood.
3. Affections of the kidneys are the most important lesions connected with the disease.
4. Collections of multinuclear cells, resembling giant placenta cells, were found in both lungs.
5. Emboli of placenta cells are to be considered as accidental, and not peculiar to eclampsia.

No special importance is attached to the slight necrosis of the liver, nor the hyaline capillary thrombosis in the lungs.

The Operative Technique of Vaginal Hysterectomy.—JACOBS, of Brussels (*Amer. Gyn. and Obst. Jour.*, March, 1896, p. 281)

The author describes in detail the manual technique of this operation, and, in addition, considers all those modifications which are properly applied to that form of the operation which may be called "typical," modifications which have extended very greatly the field of its indications.

The instruments required are a perineal retractor, two lateral retractors, a pair of strong scissors, two

traction forceps, six long forcipressure forceps, and a thermo-cautery.

A posterior semicircular incision is made by means of the thermo-cautery, which is followed by an anterior incision, also semicircular in character, the cautery, in both instances, being held close to the cervix. The dissection of the cellular tissue between the bladder and the rectum, as also the cervix, is accomplished by means of the finger, the peritoneum being incised with scissors, the opening being further enlarged by the fingers.

The entire thickness of the tissues which unite the cervix laterally with the neighboring tissues are firmly compressed by forcipressure forceps placed along each side, and these are then divided. Further traction is made upon the uterus, a long pair of forceps are placed, on the outer side of the appendages, upon the broad ligament.

If the uterus be large and the vascular system greatly developed, two forceps are used on each side, the lower one assuring hemostasis of the uterine and the upper of the ovarian artery.

The uterus and appendages are removed by an incision made on the inner side of these forceps.

In a large adherent uterus, the cervix is divided in the median line as high up as possible, from before backward, the adhesions gradually broken up as the incision is carried upward, the forceps applied to the broad ligament, and the uterus and appendages delivered.

If pelvic suppuration, accompanied by old adhesions, complicate matters, a posterior vaginal incision is made, the contents of the encysted purulent pockets or masses evacuated, with the finger preferably, and the operation continued as previously stated, the addition being that all adhesions about the tubes and ovaries are broken up carefully by the index finger, the appendages are removed subsequently with the uterus entire, or separately.

In fibroma of the uterus, accompanied by fibroid nodules of different sizes, the latter may be seized with traction forceps and extirpated either by torsion or morcellation, by means of the bistoury or scissors, before extirpation of the fibromatous uterus.

In all cases of vaginal hysterectomy, latitude must be given to the operator in the course to be pursued.

Rachitis.—S. STERLING (*Archiv f. Kinderheilk.*, XX, Nos. 1-2)

Rachitis shows its pathologico-anatomical character: (1) In an enormously increased vascularization of the ossifying tissue; (2) in a diminution or absolute failure in the deposit of lime salts; (3) in abnormal development of the ossifying tissue through the increase of cartilage cells at the epiphyses, and of the cells of the subperiosteal fibrous tissue of the shaft.

Rachitic changes are the result of an uncontrolled bone formation, the very irregularity being the pathognomonic condition.

With the temporary cessation of ossification in the skull, and the formation of "cranio-tabes," comes early a tendency to a premature closure of the sutures. With this "welding together" of different bones comes a new growth of ossifying tissue in other places in the skull, forming characteristic protuberances; which, with the premature union of bones and the softening of different planes of the skull, are the cause of the asymmetrical development of the skull seen in different children. The skull may broaden laterally or increase posteriorly, while the anterior portions remain small; or the posterior

segment may be flattened and the brow become abnormally prominent.

Rachitic hyperemia, which we find in the bones of the skull and other parts of the body, may extend to the tissues of the neighborhood, so that we find in the endo- and pericranium, as well as in the meninges, the blood-vessels increased in number, congested with blood, and dilated.

Rachitis causes characteristic changes in the shape of both jaws, with delayed or irregular dentition. The teeth may decay early, break off, or be formed imperfectly.

Besides other changes in the bony system, such as kyphosis or scoliosis of the spinal column, change in the ribs or bones of the extremities, all of which are primary symptoms of rachitis, there may develop a series of secondary symptoms. Of these the writer classifies the nervous symptoms as follows in order of their frequency: (1) Sleeplessness, sweating of the head, restlessness; (2) Chvostek's phenomenon—a cramp of the muscles of the upper lip and nose, caused by pressure exerted over the zygomatic process; (3) laryngeal spasm inspiratory and expiratory; (4) general convulsions; (5) general hyperidrosis; (6) Trousseau's phenomenon—a characteristic cramp of the extremities, caused by compressing the peripheral nerve trunks; (7) primary tetanus; (8) nystagmus and spasmus nutans.

Of other secondary symptoms, a chronic intestinal catarrh and dyspepsia generally occur; a protuberant abdomen develops, caused by the digestive disturbance and the loss of tone in the abdominal muscles.

The spleen is often enlarged, but more often from such complications as pseudoleucemic anemia or syphilis. General adenopathy is not uncommon.

Anesthetization with Ether and Chloroform in Normal Labor.—F. W. BUKOEMSKY, Hafen Ly-ing-in Hospital, St. Petersburg (*Monatsschr. f. Geburtsh. u. Gyn.*, 1896, III, No. 3, p. 197)

Although ether is being much more used by surgeons than formerly, but comparatively little has been done toward determining its value in labor. Chloroform, on the contrary, has received very careful study by a number of Russian authors, especially PULLO, SOMOLSKY, BUCHOVITZEW, and DONHOFF. In order to determine the relative value of the two anesthetics, the author has made a series of 45 observations on normal labors in which one or the other of these anesthetics was used.

The anesthetic was given differently in the different cases. In some it was given only when the head was on the perineum, while in others it was given through the first and second stages. The results in those cases which received the ether may be summed up as follows:

1. In all cases ether diminished the pain associated with the uterine contractions, and in the majority of cases made the later part of the second stage entirely painless.

2. The expulsion of the head is made much less painful if the anesthetic is given early and the patient is partly anesthetized before the head reaches the perineum.

3. As compared with cases which received no anesthetic, the duration of labor is no longer, and seems to be a little shortened in primiparæ—15 hours 18 minutes as against 16 hours 24 minutes, the average time as determined by a large number of cases.

4. In all cases, except one, the strength of the uterine contractions was increased, as determined by the tokodynamometer; their duration was not

changed, and they were rendered a little more frequent.

5. There were but few unpleasant symptoms due to the irritating properties of the ether. After the first few breaths the odor was not unpleasant. Bronchitis and albuminuria did not develop in any case as the result of the ether.

6. Postpartum hemorrhage did not occur in any of the cases. Involution seemed to be a little more rapid and complete than in those in which no anesthetic was given.

7. On the secretion of milk ether had but little or no effect. In some cases it seemed to cause slight delay in its appearance.

8. Ether seemed to have no effect on the child, although given to the mother in large quantities.

9. When the cervix is dilated enough to admit three fingers, ether seems to work most favorably; but has only a slight effect during the early part of the first stage of labor.

The cases that were given chloroform did not develop any unfavorable symptoms when the drug was given in small doses. The strength of the uterine contractions was not diminished, but the labor was prolonged, due to a small decrease in the duration of the contractions and lengthening of the interval between the pains. There were no complications during the puerperium referable to the chloroform, and postpartum hemorrhage did not occur in any case.

If either anesthetic is to be used ether is preferable owing to its non-toxic properties and the favorable influence which it has on labor and the puerperium; and the author thinks it should be much more extensively used, as it is capable of rendering labor almost painless and has no detrimental effects on either mother or child.

Renaud's Disease in Infancy.—MAUGUL (*Thesis*, Paris, 1895)

It is commonly supposed that Renaud's disease has never been observed below the age of 10 years. BOULAY notes certain cases of children of 12, 9, and 2½ years respectively.

MAUGUL has collected 171 cases of symmetrical gangrene reported from 1880 to 1885, in which it is possible to fix the age. Of these he finds 6 under 2 years of age, and 5 in the fifth year. The author reports 3 cases occurring in infants in their first year, and 3 in infants in their second year. Renaud's disease is not as rare, therefore, at this period of life as has been thought, and is certainly not limited to any one period of life.

Purulent Rhinitis in Children.—J. HOMER COULTER (*Chicago Med. Rec.*, X, No. 3)

There is a general impression that purulent rhinitis is always due to a syphilitic, tubercular, or scrofulous diathesis or to unusual uncleanness. The writer believes that a stenosis in the nasal passage, with resulting change in the epithelium is a more common cause than any of these.

Purulent rhinitis must be carefully differentiated from the condition following adenoids, impacted foreign bodies, a sinus involvement, or a necrotic process. The serious results of purulent rhinitis are exhaustion of the epithelial cells and mucous glands of the nose, causing an atrophic rhinitis, change in the voice, pharyngitis, tonsillitis, and bronchitis; there may be also gastric disturbance caused by swallowing the discharge, or indefinite septic symptoms such as furunculosis, anemia, or the so-called lithemic conditions. The treatment is, first and foremost, absolute cleanliness by means of an alkaline antiseptic spray.

SOCIETY MEETINGS

AMERICAN PEDIATRIC SOCIETY

EIGHTH ANNUAL MEETING

Montreal, Canada, May 25, 26, and 27, 1896
[Special Report to the BULLETIN]

FIRST DAY—EVENING SESSION

Some Experimental Work on Lumbar Puncture of the Subarachnoid Space.—ARTHUR HOWARD WENTWORTH, M.D., of Boston, read a paper with this title. His investigations show that: 1. Lumbar puncture is a safe procedure. 2. Normally, the cerebro-spinal fluid is always clear. 3. In inflammatory processes the fluid is always cloudy, and speaks for meningitis or blood in the fluid. The author is of the opinion that simple washing out of the subdural space is of little practical importance.

Lumbar Puncture of the Subarachnoid Space; Case.—C. G. JENNINGS, M.D., of Detroit, read the paper. In the case reported, one of tubercular meningitis in coma, an attempt at puncture was made, the needle broke and could not be found. A second puncture was made and 24 c.c. of fluid withdrawn. Microscopic examination revealed no bacilli.

Temporary Insanity Following Typhoid Fever.—By SAMUEL S. ADAMS, M.D., of Washington, D. C. Four cases, occurring in children, were reported. In all cases but one insanity developed after convalescence, and in all recovery ensued. The author of the paper stated that post-typhoid insanity offers a favorable prognosis.

Endothelioma of the Brain, with Atrophy of Paralyzed Members.—FREDERICK A. PACKARD, M.D., of Philadelphia, read this paper. A complete report of the case was presented and also what autopsy revealed. The theory of atrophy following cerebral palsy was discussed.

Nasal Feeding in Diphtheria.—This paper was presented by HENRY JACKSON, M.D., of Boston. This method is employed in the contagious wards of the Boston City Hospital, and is the routine treatment in all intubation cases. Gavage is effected through the nose and proves superior to rectal alimentation. Nasal feeding is also resorted to in cases of post-diphtheritic paralysis and where nourishment is refused.

Classification of the Tics or Habit Movements.—WILLIAM OSLER, M.D., of Baltimore. To avoid confusion and complexity of classification, the following seems practicable:

1. Simple tic or habit spasm.
2. Tics with psychological phenomena, and explosive utterances.
3. Complex co-ordination tics.

SECOND DAY—MORNING SESSION

Report of the Committee upon the Collective Investigation of the Antitoxin Treatment of Diphtheria in Private Practice.—A report which substantiates BEHRING's claim in regard to the specific curative action of diphtheria antitoxin, and which subject is of great value and interest to the medical profession was presented.

Dr. FREDERICK A. PACKARD, M.D., Philadelphia, read a paper on "Favorable Results of Diphtheria Antitoxin Treatment"; and Dr. SAMUEL S. ADAMS, Washington, in his paper on "Comparative Results of the Treatment of Diphtheria with and without Antitoxin in the District of Columbia," reported,

among other favorable statistics, 75 per cent. of recoveries in intubated cases in which antitoxin was employed.

In the general discussion following the papers on antitoxin, Dr. A. CAILLÉ spoke of his own favorable results following the use of antitoxin, which results were particularly striking in "diphtheritic croup" cases. He stated that he had personally seen ten consecutive recoveries of croup cases, with and without intubation, following the exhibition of antitoxin, whereas before the advent of antitoxin in his last series of 100 intubation cases the mortality had been 70 per cent. He also emphasized the importance of not delaying the employment of antitoxin until the arrival of a bacteriological report on "diphtheria" cases.

In reference to the question of city mortality, Dr. HOLT, New York City, drew attention to the severe epidemic of diphtheria in Chicago for the past two years. Sixty stations for the distribution of antitoxin were established, and a great reduction in mortality is now reported.

Sudden Death after Antitoxin Injections.—This paper was read by Dr. A. SEIBERT, of New York City. In order to ascertain, if possible, the cause of sudden death after antitoxin injections in the few cases reported, SEIBERT injected into the internal jugular vein of guinea-pigs and rabbits from 4 c.c. to 9 c.c. of fresh and old Behring's serum (500 to 1500 units). The animals experimented upon showed no reaction. One c.c. to 4 c.c. of a 1-per-cent. to 2-per-cent. solution of carbolic acid injected into the animals occasioned slight to violent convulsions; $\frac{1}{4}$ c.c. to 4 c.c. air injected caused dyspnea, cyanosis, and, finally, death. The author is of opinion that the few deaths reported immediately following antitoxin injection in the human subject were due to the injection of air into a subcutaneous vein, and he advises that every precaution be exercised to prevent this.

Is Low-temperature Pasteurization of Milk at about 67° C. Efficient?—In this paper Dr. R. G. FREEMAN, of New York, presented the result of his investigations in reference to the thermal death-point of the bacillus tuberculosis. He stated that 68° C. kills all bacteria when exposed to this degree of heat for 10 minutes. He also showed his milk-steaming apparatus, which pasteurizes and admits of rapid cooling, the essential point in pasteurizing.

A Study of Premature Infants Treated in the Incubator, by H. D. CHAPIN, New York City, was read by title.

SECOND DAY—AFTERNOON SESSION

Thigh-traction in Infants under one year.—By CHARLES W. TOWNSEND, M.D., Boston. Five cases were reported and their management discussed.

Insolation in an Infant aged 13 months.—HENRY LAFLEUR, M.D., of Montreal, read this paper. The child was seen in convulsions. Rectal temperature 108° F. The temperature was reduced by cold baths and packs. The temperature having been reduced to normal the child remained unconscious for some time, but ultimately got well. The author dwelt upon the possibility of confounding insolation associated with high temperature with toxemia associated with high temperature.

An Interesting Case of enlargement of the liver in a child of 30 months with symptoms resembling typhoid fever was reported by A. D. BLACKADER, M.D., of Montreal, Can. Also a fatal case of relapsing cerebro-spinal meningitis with an interval of fair health of five months was reported by Dr. WM.

P. NORTHRUP, New York city. At the autopsy an intra-cranial serous effusion was found.

The afternoon of this day was pleasantly and profitably spent in a visit to the Montreal General Hospital, Victoria Hospital, and McGill University grounds and buildings. A drive was also taken to the top of Mount Royal, from which a magnificent panorama may be enjoyed. On the evening of the same day the members of the society had the pleasure of meeting the Montreal colleagues at the house of Dr. A. D. BLACKADER.

CLOSING SESSION

The final session, Wednesday, May 27, was devoted to demonstration and discussion of a large number of extremely interesting pathological specimens, after which the society adjourned to meet in Washington, D. C., in May, 1897.

The meeting throughout was a most enjoyable and profitable one. The members of the society traveled together in a special car, and were the recipients of many courtesies at the hands of the representative Montreal confrères.

AMERICAN GYNECOLOGICAL SOCIETY

TWENTY-FIRST ANNUAL MEETING

Held in New York, May 26, 27, and 28, 1896

WILLIAM M. POLK, M.D., of New York, President

[Special report to the BULLETIN]

FIRST DAY—(CONTINUED)

President's Address.—Dr. W. M. POLK, in delivering his address, dwelt upon the changes in gynecology and the important achievements of the past 21 years—the life of the society. He said that shortly before the organization of the society the field of gynecology appeared to be largely dominated by the cervix, and gynecological practice to consist chiefly in the use of the cylindrical speculum and the stick of nitrate of silver. After referring to some of the excellent work of individual members in the past, the speaker closed with an exhortation to the society to continue to draw its inspiration from its renowned forebears, and to be loyal to their memory.

The Technique of Vaginal Hysterectomy.—Dr. PAUL SÉGOND, of Paris, presented in French a communication on this subject, which was interpreted by Dr. HENROTIN. Dr. SÉGOND said that he desired to be understood as not presenting vaginal hysterectomy as a "cure-all," but as only one method, adapted to a certain class of cases. In all exploratory operations where there was any doubt regarding the disease being bilateral, he would prefer the abdominal route. Many modifications in the operation had been made by individual operators, but in all the method was essentially that originally devised by PEAN; *i.e.*, the control of hemorrhage, and the making of sections in such lines as would most effectually avoid injury to the blood supply. One very important rule was that all the operative procedures should be done under the guidance of the eye. In the few cases in which he had been compelled to retreat before exceptionally dense adhesions, the abdominal operation would have probably yielded a similar result, and would have been additionally dangerous owing to the excessive handling of the bowel. In 600 operations he had not found a single case that had been followed by hernia. He had wounded the bladder six times. This was especially apt to occur while making the initial incision anterior to the cervix, and again just as one was about to enter the abdominal cavity.

By pulling the cervix backward and forward, one could recognize the exact location of the bladder, and so avoid injuring it while making the initial incision. The use of the large-bladed Pean lateral retractors was a fruitful source of bladder injuries in the later steps of the operation. The wounding of the rectum occurs in the same manner, but is usually unimportant, as in his experience the healing had been prompt and complete. The most serious complication was the injury to the ureter, which was prone to occur at two stages of the operation, *viz.*: (1) In dissecting back the bladder and anterior vaginal wall at the beginning of the operation; and (2) after the completion of the operation in the manipulations for the control of hemorrhage. In his 600 operations he had wounded the ureter twice. The accident was best avoided by making his circular incision, and then a lateral incision up to the sides of the uterus, thus making an anterior and posterior valve of the vagina. After the anterior flap had once been dissected up there was but little danger of injuring the ureter. The avoidance of retractors, and a perfect and careful denudation of the anterior flap were the means he would advise for the prevention of this complication. To guard against hemorrhage, he always left the forceps in place for 48 hours, and compelled the patient to remain in bed for two weeks. Unless there was some special contra-indication he also preferred to allow the packing to remain for five to eight days. The occurrence of hemorrhage at the end of 48 hours could be usually avoided by the use of proper instruments; hemorrhage during the operation was chiefly a matter of individual technique.

The Relative Merits of Total or Partial Hysterectomy for Cancer of the Cervix, by Ordinary Methods, and Supravaginal Excision by the Galvano-cautery.—Dr. JOHN BYRNE, of Brooklyn, presented a paper on this subject. He said that it could not be denied that vaginal hysterectomy was a grave procedure, although in expert hands it had not proved so disastrous as to cause it to be abandoned. He was convinced that it would have been better for women had the statistics of certain foreign surgeons, and of PRICE and EASTMAN, of this country, never seen the light of day. If he mistook not, there were already indications that the pendulum was on its return to the conservative equilibrium. He had found that out of 1273 colpo-hysterectomies, by thirty-eight surgeons, both here and abroad, the average primary mortality was 14.6 per cent. In the space of only three years 163 vaginal hysterectomies had been done in one institution alone for cancer, and at the expiration of three years only 25 per cent. were living. Of these, forty, or 12 per cent., were reported to be free from a recurrence of the disease. In his own experience with the supravaginal excision with the galvano-cautery knife, out of forty cases that could be followed, the average period of exemption from recurrence had been nine years. He had operated upon a most unpromising case in 1875, and now, twenty-one years after the operation, he was able to report that the patient was still in perfect health. For the method which he advocated, he claimed the following advantages: (1) Exemption from traumatism of parts supposed to be sound; (2) an almost total annihilation of the primary mortality; and (3) prolonged immunity from recurrence.

Dr. R. STANSBURY SUTTON said that the uterus which LANGENBECK had removed by vaginal hysterectomy in 1813 for supposed cancer had been examined in recent times, and proved not to be can-

cerous. We were all liable at times to make such mistakes in diagnosis if the microscope were not called to our aid. It had been his experience that, when cancer of the cervix had existed beyond a doubt, the disease recurred at a comparatively early period; and he thought it made very little difference whether the ligature or cautery were used in the operation. The operation when performed with the galvano-cautery was very tedious. This objection did not apply with quite the same force to the Paquelin cautery. Regarding the extirpation of fibroids per vaginam, he would say that he had become so thoroughly convinced of the superiority of the Pryor or Baer operation for large fibroids, that he would not resort to *morcellement* by the vagina. In the case of small fibroids, he would do an anterior colpotomy, enucleate the fibroids, and, if possible, return the uterus to the pelvic cavity.

Dr. J. E. JANVRIN, of New York, said that in about one-fourth of all cases of cancer of the uterus the disease begins in the cervix; hence in discussing Dr. BYRNE's paper the other three-fourths must be excluded. He had already reported his ultimate results in 16 cases of cancer beginning in the cervix; viz., 33½ per cent.—operated upon from three years and four months to twelve years ago—had been absolutely cured. In his experience the recurrence of the disease in the cicatrix had not been attended with so much suffering as the primary disease.

Dr. WILLIAM H. WATHEN, of Louisville, in discussing Dr. SÉGOND's paper, said that many operations could be easily done without the use of retractors, and rarely more than one would be required. They were a source of much danger.

Dr. H. A. KELLY said that it was not possible by the vaginal route to decide, as could be done by abdominal section, whether certain structures could be saved or not. Carcinoma, also, could be much more effectively treated by abdominal section. This only left for the vaginal method the treatment of adherent ovaries and tubes and possibly cases of hydrosalpinx, and it was well known that even in expert hands this operation was liable to be incomplete. There was one advantage of the vaginal operation, and that was that it was less dangerous if the aseptic technique were faulty. The abdominal method possessed the same advantages as to cleavage if we followed the plan first published by Dr. PRYOR.

Dr. ERNEST CUSHING said that on first seeing Dr. SÉGOND work through the vagina he had been amazed with the facility with which he operated in disease of the adnexa. He had found that morcellation greatly simplified the operation in cases of fibroids. Where there were large accumulations of pus, and the patient was enfeebled by sepsis, the vaginal route would be found the safer one. In the two cases in which he had injured the ureters, this accident had been due to the improper manipulation of the anterior retractor.

Dr. MANN said he could not agree with Dr. KELLY that all cancer should be attacked from above; for in cases in which the vaginal wall and broad ligaments were not involved in the cancerous process the lower route seemed to him to be the preferable one. The same was true where the body of the uterus was alone involved, and the organ freely movable. But the majority of cases presented a condition of cancer of the cervix, and surgical experience was in favor of abdominal section. His results from abdominal section in suppurative cases had been so satisfactory that he could not be convinced of the superiority of the vaginal operation.

Dr. A. PALMER DUDLEY said that he had been

interested in the warning given by SÉGOND regarding the dangers connected with the use of retractors. He objected to the use of the cautery on account of the slowness of the healing process. Where it was necessary in cases of cancer of the uterus to make as extensive dissections as Dr. KELLY had described, he thought it would be better to leave the patient alone altogether.

Dr. BACHE EMMET showed a special clamp that he had devised for grasping the entire broad ligament. It was so constructed that by simply bringing together the distal extremities of the blades the latter became locked.

Dr. FLORIAN KRUG commented with much satisfaction on the evident change of opinion in the society in the last two years regarding the removal of the uterus in bilateral suppurative disease of the adnexa. So far to-day he had not heard one dissenting voice.

Dr. FORD, of Utica, said that he was moved to say that the men were not all dead who thought it worth while to speak of conservatism as regards the uterus. SÉGOND, in his first paper, had referred to the removal of the uterus in many instances, simply to gain better access to diseased adnexa. He was glad to see that the tendency in this country seemed to be now to save the uterus. After vaginal hysterectomy for suppurative disease, the early removal of the clamps was sometimes the means of allowing the escape of purulent foci, which would be retained had the operation been done with ligatures.

Dr. HENRY C. COE, of New York, said that he had become pessimistic regarding the treatment of malignant disease, and he thought not without good reason, for in conversation with a well-known surgeon here he learned that out of four or five hundred radical operations for carcinoma of the breast he could only report 13 cures. It was well known that even after the most radical operation the microscopist would find beyond the supposed limits of disease certain nodules, suspiciously like cancer, and that recurrence took place in these nodules. Some time ago Dr. E. C. DUDLEY had spoken in favor of clamps in such operations, on the ground that the consequent sloughing process tended to destroy these groups of cells beyond the incision made by the surgeon's knife. If this were true, it was reasonable to assume that the galvano-cautery might have a special value in the treatment of this class of cases.

Dr. S. C. GORDON said that it was his practice in cases of cancer of the uterus to perform an abdomino-vaginal operation, because he could much more readily remove the vaginal portion of the cervix through the vagina, and the operation could be completed by the abdominal route, the uterus being drawn back through the vagina without infecting healthy tissues with the disease. He still maintained the superiority of the abdominal operation for fibroids; he could see little enough by that route, but much more than by the vagina.

Dr. BAER, of Philadelphia, said he was still operating from above largely because he could not believe that it was right to extirpate the uterus because the appendages were diseased. He could not believe either that the uterus was hopelessly diseased in such cases or that it was a useless organ. Another reason why he operated by abdominal section was that he thought it was important to retain the cervix.

Dr. J. M. BALDY, of Philadelphia, said that in contrast with the disadvantages of an abdominal scar he would place the shortening of the vagina resulting from vaginal hysterectomy. He knew of two instances in which this alone had destroyed the

happiness of the family. We had heard from SÉCOND of injuries to bowel, bladder, and ureters, much more frequent than in the abdominal operation, and he would add that in hands less skilled than those of SÉCOND serious consequences had been known to follow such injuries to the bowel. The abdominal method offered a ready means for immediate repair of any damage, should any be done in the course of the operation. The after-treatment of cases that had been subjected to vaginal section was most disagreeable, and savored of old surgical methods.

Treatment of Extra-uterine Pregnancy.—Dr. HOWARD A. KELLY, of Baltimore, read a paper on this subject, in which he advocated vaginal puncture for the removal of the products of conception, and drainage. It was suitable for the majority of cases of extra-uterine pregnancy coming to us, *i.e.*, those in which rupture had occurred in the early months. It was not suitable for recent ruptures, for cases that had not ruptured, or those in which pregnancy was quite advanced. After a careful bimanual examination, the patient should be placed in the lithotomy position, and the genital passages thoroughly cleansed. With the finger against the sac as a guide, the puncture should be made with scissors, and then the opening dilated until it was $3\frac{1}{2}$ ctm. in diameter. Should the peritoneum be opened, no harm would result if the sac were thoroughly cleaned out and efficient drainage secured. After washing out the cavity sac with normal salt-solution it should be lightly packed with gauze for from five to seven days. The great advantage of this operation was that none of the pelvic structures was removed, while the pelvic hematoma was opened and drained and the patient completely restored to health. The greatest danger was hemorrhage. In only 1 case in his series of 13 had it been troublesome, but in this one it was so severe that he would advise the surgeon about to perform the vaginal operation to be prepared to open the abdomen.

Treatment of Early Rupture of Extra-uterine Pregnancy.—Dr. FERNAND HENROTIN, of Chicago, in a paper on this subject, limited his consideration of it to those cases in which rupture took place prior to the second month. He would divide the cases into two classes, *viz.*: (1) Those cases in which there is complete rupture with free, primary abdominal hemorrhage; and (2) those in which there is incomplete rupture into the broad ligament. The diagnosis of the former, *i.e.*, those in which there is rupture prior to the seventh week, is the diagnosis of intra-abdominal hemorrhage. When there is no evidence of sepsis, it is better to close the abdomen after the removal of the large clots, because in this way there was less manipulation of the peritoneum and the operation occupied less time, thus diminishing shock and increasing the absorptive power of the peritoneum. When there was sepsis present, it was better to cleanse the cavity as thoroughly as possible consistent with the condition of the patient. In desperate cases, a large gauze drain might be needed. It should be noted that a woman suffering from progressive hemorrhage to the point of exsanguination, remains conscious after the first swoon, and the pulse becomes steadily more rapid and feeble. Her face also remains constantly blanched, instead of, as in the fainting woman, flushing from time to time. Again, the pains of rupture are more likely to be successive but distinct attacks, accompanied by slight faintness and shock, and leaving the patient well in the intervals. In tubal abortion one would expect the pains to recur at short intervals up to the

time of the escape of the ovum. True surgery, he said, demands the ligation of every bleeding vessel, hemorrhage from which might cause loss of life. In cases of tubal abortion it might be justifiable to wait a little, but not so in rupture and free hemorrhage into the cavity. Restlessness is a sign of the greatest importance, being indicative of impending death from hemorrhage. Where there is progressive internal hemorrhage, abdominal section should be performed immediately. Often within five minutes the bleeding vessel can be controlled, and the whole operation completed in 15 minutes, and during this time an assistant may be performing transfusion, if necessary. Acute primary, free abdominal hemorrhage, the speaker said, should always be operated upon by the abdominal route. He thought that many lives were lost by time wasted in cleansing the cavity.

Dr. H. J. BOLDT said that he did not think the treatment advocated by Dr. KELLY would be very generally adopted. He had himself had one serious case of hemorrhage from vaginal puncture. The differential diagnosis, as laid down by Dr. HENROTIN, was very interesting, but could not be considered as absolute. Personally, he would never operate upon a patient while in profound shock.

Dr. WATHEN said that he had employed the treatment advocated by Dr. KELLY in that special class of cases, and with good results. He thought opening Douglas's pouch was the best method in cases of severe hemorrhage, in which there was such profound shock that laparotomy would endanger life.

Dr. MANN described a case in which he had operated through the vagina, and had to deal with a frightful hemorrhage. This had been with great difficulty controlled by packing, but the patient had died shortly afterward.

Dr. CHARLES P. NOBLE, of Philadelphia, said that, except in old cases, he would hesitate to operate through the vagina, because of the liability to the occurrence of severe hemorrhage. He had operated upon five cases of tubal abortion, in which the clinical picture had been exactly that given by Dr. HENROTIN for primary hemorrhage into the abdomen. A strong point against the vaginal method of treatment was that the ovum might be left in the tube ready to excite a fresh hemorrhage. Where the abdomen was full of blood, unless the patient were very low, he would make a free incision, wash out the abdomen, and leave a considerable quantity of fluid in the abdominal cavity.

Dr. A. LAPHORN SMITH expressed his regret that such a brilliant abdominal surgeon as Dr. KELLY should waste his talents upon the vaginal route. Personally, he would be filled with dismay if required to operate upon an extra-uterine pregnancy through the vagina.

Dr. BAER spoke in much the same strain regarding Dr. KELLY's paper, and cited a case of very severe hemorrhage in which he felt sure, had he been operating from below, the patient must have perished before he could have opened the abdomen and controlled the bleeding. Most of his cases had recovered from the shock of the hemorrhage before he had operated. He had never seen a case of extra-uterine pregnancy die from the hemorrhage.

Dr. J. E. JANVRIN said that nothing had been said about operating before rupture. He had successfully operated in two cases in which there had been symptoms of hemorrhage, but rupture had not yet occurred.

Dr. S. C. GORDON said that in 1887 he had performed the second successful operation in this country for tubal pregnancy. Since then he had operat-

ed upon nine or ten cases, and his experience, was opposed to the belief that it was necessary to operate while the patient was still in collapse. He did not have as much fear of these patients dying from hemorrhage as did Dr. HENROTIN.

Dr. ASHTON said that he was decidedly in favor of the abdominal route in operating on these cases, because our object was to control the bleeding, and this could be best done through the abdomen. Moreover, the irrigation of the vagina with hot water was in itself sufficient to increase the hemorrhage.

Dr. JOHNSTONE said that the rule among general surgeons was never to operate during shock if it could be possibly avoided, and the same rule was applicable to gynecology.

Dr. WATKINS said that out of eight cases operated upon through the vagina, he felt positive that six would have almost surely proved fatal had abdominal section been done.

Dr. ANDREW F. CURRIER, of New York, said that he believed the majority of patients would die if operated upon during collapse. The reported cases would seem to show that the vaginal operation was not safe in this class of cases.

Dr. J. TABOR JOHNSON, of Washington, D. C., said that a number of cases had been reported in which death had occurred while the surgeon was waiting for the shock to pass off. It seemed illogical to endeavor, while the hemorrhage was still active, to resuscitate the patient from shock, as the measures employed for this purpose tend to increase or keep up the hemorrhage. It seemed more rational and more surgical to cut down upon the bleeding point and secure it. The only cases that seemed to him to be suitable for treatment through the vagina were the old cases—those formerly classed as pelvic hematocele.

Dr. HENROTIN said that it seemed to him that if there were anything which should not be operated upon from the vagina, it was an extra-uterine pregnancy. For 16 years he had practiced general surgery, and he had gotten beyond the point of waiting for shock before operating. Of course, he would not operate upon a patient exhibiting that peculiar restlessness so characteristic of impending death. It should be remembered that the shorter the time between the beginning of the attack and the occurrence of severe collapse, the sooner must one make an effort by operation to control the bleeding, for any further delay will surely terminate fatally. He was firmly convinced that it was possible clinically to differentiate between a woman who was simply swooning, and one in collapse from exsanguination.

Suspensio Uteri with Reference to its Influence upon Pregnancy and Labor.—Dr. CHARLES P. NOBLE, of Philadelphia, presented a statistical study of this subject. He said that since this operation had been first devised, by Dr. KELLY, in April, 1885, it had been thoroughly tested, and experience had shown that it was very satisfactory as a gynecological operation, both as to its performance and results, but it had been found in some instances to obstruct labor. His attention had been called to this subject by the difficulty experienced in two cases of labor in patients upon whom he had performed this operation previously. One of them was delivered by podalic version, but the other required a Porro operation. He had accordingly instituted a collective investigation on this subject. Out of 808 cases in which suspensio uteri was performed by American operators, and one ovary allowed to remain, so that subsequent pregnancy was possible, there were only 56 pregnancies, or 6.9 per cent., from which it was to be inferred that pregnancy was

not so liable to occur in women requiring this operation as among others. A study of the reports of these cases seemed to warrant the following conclusions: (1) That subsequent pregnancies are usually uncomplicated; (2) that inertia uteri is not infrequent; and (3) that serious obstruction to labor will occur if the fundus of the uterus becomes imprisoned in the pelvis. Of 165 pregnancies reported in foreign journals since 1891, as occurring after this operation, there were 17 abortions, 7 premature labors, and 60 full-term labors. Of these 60, 18 were complicated, viz.: 2 artificial extractions; 8 forceps, 5 versions, and 3 cesarian sections. There were 3 deaths from labor, or about 5 per cent. The speaker said that the real obstetrical danger was that the fundus and anterior wall of the uterus might become imprisoned below the point of suture to the abdominal wall, thus entailing two serious consequences, viz.: (1) That the posterior wall of the uterus must afford the necessary room by exaggerated development; and (2) that the hypertrophied fundus and anterior wall may constitute a tumor, and so block up the inlet of the pelvis. This had occurred in a number of reported cases. This study had led him to conclude that while the technique he had employed had been eminently satisfactory from the gynecological standpoint, it was improper from the standpoint of the obstetrician. That method had consisted in attaching the uterus from the fundus to the abdominal wall by silkworm-gut sutures buried at the level of the aponeurosis. The sutures were introduced at the lower angle of the incision. As the posterior portion of the fundus was attached low down, only the posterior and lateral uterine walls were allowed to ascend into the abdomen during pregnancy. He now made the lower angle of the incision stop one inch and a half above the pubis, and the sutures were passed through the anterior, instead of through the posterior, face of the fundus. Aponeurosis and muscle were closed with interrupted, buried silkworm-gut sutures. Although KELLY had performed about one-fourth of all the American operations, in only one of his cases had there been difficulty in labor reported. Referring to other similar operations, Dr. NOBLE said that those who had had most experience with Alexander's operation were unanimous as to its advantages in suitable cases. It does not interfere with pregnancy or labor. Vaginal fixation must now be considered as unjustifiable in women of child-bearing age, for although still a young operation, it had already necessitated a large number of operative deliveries. Alexander's operation seemed to be preferable to suspensio uteri in child-bearing women.

(To be continued)

THE NEW YORK COUNTY MEDICAL SOCIETY

STATED MEETING

May 25, 1896

EDWARD D. FISHER, M.D., President

Therapeutics of Heart Disease.—Dr. WILLIAM H. THOMSON said that in no other affections was the etiology of so much importance in connection with therapeutics as in the diseases of the heart. In the first place, the progressive nature of the rheumatic heart diseases should be noted. The rule is that the younger the patient the more surely inclined is a slight initial cardiac lesion to develop into a serious structural alteration. The inflammation is more apt to recur in the heart for several reasons. One of these is the formation on the edges of the valves

as a result of the initial endocarditis, of a line of granulations which, by irritation, leads to deeper lesions. The heart is more liable to inflame than at the first attack. The functional activity of the organ was another reason for the liability of the inflammation to recur or progress. These reasons naturally suggest the importance of instituting prophylaxis in rheumatism. The prompt use of the salicylates internally, and the local application of the tincture of iodine to the throat at the first appearance of a tonsillitis he considered an important prophylactic measure. It was an undoubted fact that rheumatism prevails chiefly in localities in which persons are most apt to become chilled when the surface of the body is wet. Rheumatic individuals, therefore, should always protect the skin with flannels, both by day and night. The pulse of rheumatic persons should be frequently tested, as it often furnishes valuable advance information regarding an outbreak of some cardiac affection. The speaker said that he would assign to rest in bed the very first place in the therapeutics of heart affections. In many acute cases, however, rest in bed did not suffice to bring down the pulse properly. In such cases, aconite would be found a most valuable drug for it often relieved the dyspnea and diminished the frequency of the heart's action. Aconite was not only a cardiac sedative, but it had a decided effect in relieving inflammatory pain. In common with other vegetable nervines it produced no permanent effect on the heart, any more than did tobacco. To give to a patient with pericarditis and adhesions to the pleura, sternum, and ribs, digitalis would ordinarily only increase his sufferings, whereas strapping the chest would prove of signal benefit. For the dyspnea of mitral stenosis he had found belladonna, either with or without sulphuric ether, of great benefit. The characteristic action of belladonna was to restore the rhythmic action of unstriated muscular fiber. In cases of mitral stenosis, he had often found digitalis inferior to strophanthus, sparteine, and belladonna. In all cases of chronic heart disease the evil effects of anemia should be borne in mind. Although iron was valuable in many forms of heart disease, he had come to look upon it as decidedly mischievous in rheumatic cases. In all febrile anemias, such as phthisis, rheumatism, and pernicious anemia, iron was as likely to do harm as good. For rheumatic anemia, cod-liver oil, with an occasional addition of arsenic, seemed to be the best treatment. He was of the opinion that the sulphide of calcium, in doses of $\frac{1}{2}$ grn. and upward, four times a day, was also useful in these cases.

In the secondary cases of heart disease it should be remembered that the heart is only a part of the circulatory apparatus, and that therefore the disorders of the circulation would affect the heart. The secondary affections of the heart began chiefly at the periphery of the circulation, so that the heart at first underwent hypertrophy, and subsequently underwent degeneration and dilatation. In this late stage the chief object of treatment should be to keep up the strength of the walls of the heart. The remedial measures might be divided into the constitutional and the symptomatic. Under the first head, a permanent place should be accorded to fresh air. Next to this the author placed properly applied massage, with properly regulated muscular resistance made by the patient to the movements of the massage operator. After a few weeks of such massage the improvement in the breathing was so marked that its relation to the treatment could not be doubted. Dilatation of the right side of the

heart with dropsy, due to chronic bronchitis, was one of the most curable of heart affections, provided one could cure the bronchitis. The trouble was that a vicious circle was set up. Hours spent in a dry, equable air strengthened the heart muscle. Among medicines, the tincture of the chloride of iron with strychnine did more good than the usual cough mixtures. The most common, as well as the most serious, of secondary heart diseases were those dependent upon general arterial disease. Long ago it had been very truly said that a "man is as old as his arteries." In secondary dilatation the rapid pulse was not due to irritation of the heart itself, but to the heart not being capable of emptying itself with each stroke. Here digitalis, and not aconite, would lessen this symptom.

In conclusion, the author referred to the use of some of the symptomatic remedies. In secondary cardiac dilatation, digitalis took the lead of all other drugs, but there was not one in the list whose administration should be less a matter of routine. By the addition of nitroglycerin we were now enabled to ease the heart of the increased peripheral resistance produced by the digitalis. Another serious effect of digitalis was that when given too continuously or in too large doses it caused gastric disturbance which is very difficult to allay. When using large doses of digitalis, calomel, given in doses of half to two-thirds of a grain, three times a day up to the first signs of mercurialization, often most markedly aided the action of the digitalis. For cases of aortic regurgitation and mitral stenosis, he had found serviceable a mixture of tincture of strophanthus, tincture of nux vomica, and tincture of digitalis, equal parts, when given in doses of twenty to thirty drops three times a day. In chronic interstitial nephritis with high-tension pulse and low-specific-gravity urine, small doses of corrosive sublimate seemed to him to be beneficial. He had repeatedly seen cardiac dropsy decline on ordering restriction of the fluids in the diet; hence, milk diet was not appropriate under such circumstances. It should not be forgotten that opium is a most valuable heart stimulant for occasional use. In very many nocturnal attacks of cardiac dyspnea, chloral proved to be more effective than almost anything else.

Dr. WILLIAM H. MCENROE, speaking of secondary cardiac disease, referred to the varieties of cardiac failure. One variety, he said, was due to over-exertion of the heart, another to deficient innervation of the heart. A heart that could refrain from beating rapidly under great excitement or exertion was generally a strong heart. His experience had been that, as a rule, better results were obtained from combining the heart tonics. By combining strophanthus, digitalis, and nitroglycerin we got all the good effects of these drugs without their bad effects. The best remedy for attacks of true angina pectoris, in his opinion, was nitrite of amyl, freely inhaled. For cardiac dyspnea and cardiac insomnia he knew of no better drug than some preparation of opium.

Dr. S. H. DESSAU said that, after the acute stage of pericarditis or endocarditis, he had found that cod-liver oil was one of the best remedies. In these cases he felt sure that digitalis could only do harm.

Dr. HENRY DWIGHT CHAPIN said that many cases of mitral disease appeared to begin in childhood, although no symptoms may have developed for many years afterward. He was of the opinion that we should carefully watch not only children suffering from rheumatism, but those affected with chorea,

and thus endeavor to protect them from the dangers of an acute cardiac lesion. As soon as the heart lesion was discovered in such little ones, prolonged rest should be insisted upon.

Dr. S. BARUCH said that he desired to confirm what the reader of the paper had said regarding the value of the Swedish movements in cardiac disorders, when carried out systematically under medical supervision.

Dr. THOMSON, in closing the discussion, said that when there was reason to believe that, independently of cardiac dilatation, there was cardiac weakness, it was usually to be attributed to one of two conditions: (1) atheromatous disease of the coronary arteries, and (2) syphilitic heart disease. There would often be no murmur heard on auscultation in the latter class. Iodide of potassium seemed to be of service here. It was rather remarkable that the endocarditis might not appear in children for one or two years after an attack of chorea; hence the importance of keeping these children under observation for a considerable time.

The Nonoperative Treatment of Urethral Strictures.—Dr. FERD. C. VALENTINE said that the increasing experience showed that the non-operative method was the correct one for the majority of cases of stricture. He would divide strictures into soft, hard, and spasmodic. The vast majority of strictures could be properly located only by a *bougie-à-boule*, preferably furnished with a rather abrupt shoulder. Most cases were considered cured when a No. 23 French could be easily passed, but personally he had met with cases which could be diagnosed only by urethroscopy. Many cases which would permit the passage of a No. 25 French showed on urethroscopic examination an unhealthy urethra. When the urethra was sufficiently dilated to admit a No. 20 French, the Benecke steel sound could be satisfactorily used. He preferred to use Oberlander's dilator, inserting it down to the stricture, and leaving it there for about five minutes, and then withdrawing it. About one week later it would be found that the instrument could be screwed up one or two numbers higher. This treatment should be kept up until 30 was reached, and then at each sitting the increase should not be more than half a number. Dr. VALENTINE said that he believed that catheter fever was invariably an infection, due to unclean instruments, or a traumatism in the canal. In cases that were known to be susceptible to catheter fever he had found that a previous injection of boric-acid solution into the bladder prevented the occurrence of this fever. He had found in sensitive urethra that severe pain would be felt *after* instrumentation, if the urethra had been cocaineized. His experience with the new electrolyzer of Prof. FORT, of Paris, had been limited, but, so far as it had gone, it had been very satisfactory.

Dr. CARL BECK said that internal urethrotomy had been almost discarded at the present time in Germany. The main danger of this operation mentioned in the books was hemorrhage, but little stress being laid upon another and important danger—infection. It was impossible to sterilize the urethra. He had been much pleased with the action of Oberlander's dilator. In obstinate cases only would he recommend a cutting operation, and then, external urethrotomy.

Dr. W. K. OTIS said that the dilatation of the stricture never cured it permanently, and the dilatation had to be kept up through the patient's life. Internal urethrotomy for the anterior $5\frac{1}{2}$ in. of the urethra he did not consider a danger-

ous operation, for he had performed or observed many hundred internal urethrotomies without a death or even a serious complication. He said that Dr. BREWER had reported to this society 100 consecutive internal urethrotomies, performed during one year on dispensary patients without any serious complication. If the cutting operation were thoroughly done, there would be no return of the stricture. Not long ago he had had an opportunity of examining a man who had been cut about twenty years ago, and had not had an instrument passed for over six years. The speaker said that he had passed a full-sized sound through the urethra of this man without obstruction into the bladder. One reason that better results were not obtained from internal urethrotomy was that the cutting was not sufficiently thorough. For the deep strictures there was absolutely only one method of treatment, and that was by external urethrotomy, for the stricture would inevitably return after dilatation, and perhaps at a time when succor was not at hand, and when it would prove fatal.

Dr. JAMES P. TUTTLE said that the whole principle of dilatation and internal urethrotomy was wrong, for it assumed that the normal urethra was of uniform caliber throughout its whole length, which was not a fact. The correct principle is to restore the strictured portion to its normal caliber. The success of internal urethrotomy depended not upon the thoroughness of the cutting, but upon the thoroughness with which the urethra was dilated after the internal urethrotomy. The speaker made a strong plea for thorough dilatation by means of such instruments as would dilate only the strictured portions.

Dr. VALENTINE, in closing, gave a demonstration of the method of using the various instruments, and of irrigating the urethra and bladder. His objection to internal urethrotomy was that it left a space which must fill with cicatricial tissue, and be followed by contraction. He did not believe that Dr. OTIS could show a single case in which by direct inspection with a urethroscope bands of cicatricial tissue would not be found.

Huxley Memorial.—A sum of upwards of \$11,500 has been received by the Huxley Memorial General Committee. This will be sufficient for the erection of the statue of the great scientist in the Natural History Museum, and for the establishment of a medal at the Royal College of Science.—*Medical Press and Circular*.

English Notes on American Hygiene.—Our esteemed contemporary, *The Hospital*, London, contains the following in reference to the spitting nuisance: "The Health Department of New York City is causing passenger-cars to be posted with placards forbidding the nuisance, and in St. Louis measures of a further-reaching nature are being adopted, and, to facilitate matters, spittoons are to be largely provided in public places. There is yet another point in which America is setting us a good example. It is universally recognized that our shops should be provided with seats for the attendants, yet nothing effectual in the matter has been done, publicly or privately. The Legislature of New Hampshire is now compelling all employers of females to provide seats for them. It only needs a certain amount of well-directed energy to do the same in England."

CORRESPONDENCE

(From the BULLETIN's Special Correspondents)

PHILADELPHIA LETTER

A stated meeting of the Philadelphia County Medical Society was held May 27, with Dr. W. M. WELCH in the chair.

Dr. LAWRENCE F. FLICK read a paper on "Calomel, a Specific in Diphtheria." He had previously read a paper before the society on this subject, and now wished to present five additional cases. He gave $\frac{1}{10}$ grn. of calomel every 15 minutes for from three to five days, increasing or diminishing the dose according to the effect produced. For insufflation he used 33-per-cent. triturate of calomel and sugar of milk for the first day, and then the pure calomel. He found that when applied to the throat calomel was readily absorbed, but that it was not absorbed if applied to the nasal cavity. The other medicines used were strychnine and digitalis when the heart was weak, and he had found, when calomel was pushed until the characteristic stools were produced, the heart did not so often become weak. The enlarged glands soon disappeared under the use of the insufflation, and would again become enlarged if the insufflations were discontinued. If the patients were asleep he did not disturb them, but dusted the powder on the back part of the tongue. The diagnosis in all of the cases was made from bacteriological examination made at different times during the disease, and by several microscopists. All the cases recovered.

Drs. S. SOLIS-COHEN, ROSENTHAL, CURTIN, JUDD, HARE, and WELCH took part in the discussion. All of them had used calomel in diphtheria with good results; the dose employed varied from 1-10 to 10 grn. every hour. The insufflations had not been used, but a solution of bichloride had been employed locally by most of them. Dr. JUDD cited a case of auto-infection, this inoculation occurring on the finger, with very grave general symptoms. The patient was an adult and he had given her 10 grn. of calomel every hour until 365 grn. had been taken, when she was very much improved and went on to recovery. Dr. HARE said that large amounts of calomel could be borne in diphtheria and that salivation would not occur in children under 6 or 7 years of age.

Dr. GEORGE E. SHOEMAKER read a paper on "Cases Illustrating Three Methods of Hysterectomy for Different Indications." In the first case, that of epithelioma of the cervix with no involvement of glands or surrounding tissue, he thought vaginal hysterectomy was the best operation. In the second case, of bleeding and painful fibroid of body of uterus and also in cases of pyosalpinx, cancer of body and other diseases when the cervix was not involved, he thought abdominal hysterectomy was indicated, leaving the cervix, which would support the vagina.

In cases where the body and cervix were involved, especially in fat patients, he thought the combined method should be employed. He passed around specimens illustrating conditions demonstrating the advisability of selecting the method employed. In the discussion Drs. M. PRICE and DOWNS pointed out the dangers of employing vaginal hysterectomy in cases with adhesions or growths, as the ureters or intestines may be displaced and bound down, rendering injury liable without detection.

Dr. T. S. K. MORTON read a paper on "Intra-

venous Saline Infusion for Hemorrhage, with reports of a case of Extra-uterine Pregnancy and of Stab-wound of the Thorax, apparently saved by its employment." He employed normal saline solution (.6 of 1 per cent.) with the addition of a little alcohol, which acted as a stimulant. The solution should not be warmer than 100°, but as it was injected slowly through a long tube there was not much danger of having it too warm. The point of selection for the injection was the internal saphenous vein at the ankle, or one of the veins at the elbow; in cases of amputation it might be injected into one of the veins in the field of operation. When injecting it into the cellular tissue, the armpit and between the shoulders were the best. It has been injected into the arteries, but this has been abandoned. The amount injected should be a quart, and some could be injected into the rectum, as it is readily absorbed there. Repeat the injection when there are signs of returning collapse. Drs. HUTCHINSON, of Buffalo; MONTGOMERY, PEARCE, MILLER, FLICK, HAMMOND, and DOWNS took part in the discussion. They agreed with Dr. MORTON that saline injections should be used in hemorrhages, stopping the bleeding joint if possible before injecting the solution. Dr. PEARCE spoke of a case of typhoid fever with hemorrhage and collapse, which was treated with saline solution followed by recovery.

Dr. WOOD HUTCHINSON, professor of comparative pathology at the University of Buffalo, addressed the society, asking the members to send him report of cases when the pathological changes in diseases of animals were similar to those in man.

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A joint meeting of the Pathological and Neurological Societies was held May 28, with Dr. J. H. MUSSER in the chair. The following papers were read showing the results of minute examinations of nerve-tracts which had been subject to lesions during life: "Lesions of the Nervous System in Acute Yellow Atrophy of the Liver," Drs. BURR and KELLEY. (a) "Senile Paraplegia"; (b) "Cord from a Case of Fracture of Vertebra," Dr. KELLEY; (a) "Ataxic Paraplegia"; (b) "Chronic and Acute Myelitis"; (c) "Idiopathic Muscular Atrophy," Dr. RHEIN; "Cord from a Case of Pott's Disease," Dr. BOYER. Each paper was accompanied with appropriate drawing and microscopic slides. This work had been done in connection with the pathological department of polyclinic, where they are devoting especial attention to the pathological changes of the nervous system.

Dr. MARY A. SCHIVELY read a paper on "Syphilis of the Brain." She drew attention to the gummatous growth about the region of the optic chiasm, producing disturbance of vision.

In the discussion Dr. C. K. MILLS pointed out the manner of onset of hemiplegia in cases of cerebral syphilis; the parietic disturbances are very sudden and owing to the syphilitic condition of the cord, which usually exists along with the brain lesion, there may appear a sudden and permanent loss of control of the sphincters.

Drs. WHITE and SPILLER exhibited brains from two cases of infantile cerebral paralysis.

Dr. FISHER read a paper on "Ascending Degeneration Following Caries of the Lumbar Vertebrae."

At the first meeting of the Board of Managers of the recently consolidated Pennsylvania Epileptic Hospital and Colony Farm, arrangements for the erection of buildings on the farm at Oakbourne, Chester county, were perfected. The ground was recently purchased for \$14,000 and the buildings will be erected through the liberality of H. C. LEA,

who has contributed \$50,000 for that purpose. The managers have enough money to run it in an experimental way for the next year. Dr. WHARTON SINKLER was elected president, Drs. C. K. MILLS and J. C. WILSON are members of the board.

Drs. THOMAS J. MORTON and HENRY W. CATTELL have been appointed Coroner's physicians to fill the vacancies caused by the resignation of Dr. SIDEBOTHAM and the death of Dr. MATTERN. Dr. MORTON is a graduate of Jefferson Medical College and has served for some time as police surgeon. Dr. CATTELL is a graduate of the University of Pennsylvania, where he is demonstrator of morbid anatomy. He is pathologist to the Philadelphia University, and Presbyterian hospitals.

SAN FRANCISCO LETTER

During the past few months the public press several times devoted columns to the description of some most wonderful, most delicate, and most dangerous operations recently performed by some of San Francisco's said-to-be professional men. One of the papers devoted columns to an ordinary case of appendicitis, which the would-be surgeon stated was due to the activity of the psoas muscle, a previously undescribed cause. The case was profusely illustrated, the names of the patient and the great surgeon were given. There was also a minute description of the etiology, pathology, symptoms, and treatment of appendicitis, such as one could read in any text-book on surgery. Among several others lately published, I select another case. This was "an operation for removal of some bone of the skull, and paralysis cured by laying the brain bare by a delicate operation." Statements were made that the operation was more than a trephine; it was probably the most remarkable operation of its kind ever performed in the city; a most dangerous and delicate undertaking, etc., etc., taking over two hours before the operation was completed. The true inwardness of these medical advertisers is apparent to every one, and none of the usual excuses is of any avail. The real motive for such professional advertising is always self-interest. Such physicians, we all know, are making special bids for business, even as the quack, and it is an insult to ordinary intelligence to suppose that detailed accounts of operations, etc., can be made by any newspaper man. Clever as the reporter may be, the only man who can give satisfactorily these details is the operator. The technical details given leave no doubt that these men have been their own advertising agents. And it all goes to show that if these men cannot maintain their hospital and other positions by truly professional ways, they will at least keep themselves before the public by methods the professional man looks at with contempt, which, although it can never be measured, yet, as time goes on, soon shows itself plainly in the direction of professional ostracism and ruin.

* * *

At the regular monthly meeting of the California Academy of Medicine held May 16, Dr. D. W. MONTGOMERY read a paper on "An Obstinate Case of Chancre of the Lip." Dr. MONTGOMERY stated the patient was a woman aged 52 years, with a large ulcer on the lower lip near the angle of the mouth; the ulcer was of rapid growth with no induration, of only three weeks' duration, with early involvement of glands of one side of the neck. Diagnosis of cancer. For a test treatment the speaker used locally unguent. hydrarg.; internally, protoiodide of mercury pills, one three times a day, using small

doses of the protoiodide, and increasing it day by day. Forty-two days after the appearance of the ulcer, and 21 days after commencement of treatment, a microscopical examination was made of the growth; examination showed the growth was not cancerous. Treatment was changed to hydrargyrum cum creta. Internally and locally acetanilid and boracic acid were applied; now secondary symptoms broke out, the gray powder was discontinued and the protoiodide was again used. It took 144 days before the primary sore was completely healed. Dr. KUGELER opened the discussion by stating he did not consider the test treatment employed strong enough. He advised pushing the mercury till the patient's teeth were loosened; he preferred giving inunctions, and internally administering potassium iodide in large doses.

Dr. G. GROSS called attention to some of the early symptoms of syphilis, *i.e.*, vertigo, pains in the joints, and glandular enlargement, which Dr. MONTGOMERY had not mentioned in his paper. He did not consider the treatment employed a test-treatment, but considered intramuscular injections of calomel or intravenous injections of corrosive sublimate the best treatment, preferring the intramuscular injections for most cases. In using the injection methods one must always examine the mouth and teeth, and if the latter are in poor condition send the patient to the dentist. Also examine the urine; and if there is no nephritis, good and quick results will follow the intramuscular injections. A few hours after injection the mercury can be found in the urine. Advantages of intramuscular injections: They are most efficient and heroic; the clinical effects are striking; the disease is quickly controlled; the chancre heals inside of one to two weeks; the injections do not cause salivation, nor interference with the appetite or digestion of food; malignant syphilis quickly and readily yields to the injection methods. Disadvantages: Sometimes they cause very severe pain usually about three days after injection; occasionally about once in twelve injections an abscess forms at site of injection.

Dr. GROSS also commended the subcutaneous injections of nitrite-of-soda solutions, as being especially useful in the tertiary stage and where there are extensive ulcerations.

Dr. DUDLEY TAIT mentioned cases where other methods of treatment had failed to do any good, and on using intravenous injections of corrosive sublimate he got favorable results. Dr. MONTGOMERY, in closing discussion, stated that chancre of the lip has about the same course as chancre elsewhere. He considered the unguent. or emplast. hydrarg. the best local treatment for chancre and chancroids. Internally, protoiodide of mercury is good conservative treatment; gray powder was also very efficacious. He had used the intravenous method once in a case of malignant syphilis of the brain, but was not satisfied with it. He thought the injections caused too frequently thrombi and obliteration of the veins, and had preference for the protoiodide internally, or inunctions of the unguent. hydrarg. As to intramuscular injections, the mercury may remain a long time in the muscle without being absorbed, and when absorbed it is taken up by fits and starts. As to enlargement of the glands being diagnostic of early syphilis, case after case does not show recognizable enlargement. Many cases of secondary symptoms do not show any enlargement of the general lymphatic glands. The only doubt in diagnosis about the case he reported was that the local ulceration might have been a gumma.

Drs. McCONE and CAGLIERI presented a case of "hepatic tumor."

At the next regular meeting of the Academy of Medicine, San Francisco, Dr. HENRY KREUTZMANN will offer a paper "On the Surgical Treatment of Uterine Displacements"; Dr. G. Gross a paper on the "Intramuscular and Intravenous Injections of Preparations of Mercury in the Treatment of Syphilis."

* * *

On May 21 the commencement exercises of the medical department of the University of California were held at the Baldwin Theater. Dr. R. BEVERLY COLE returned from the meeting of the American Medical Association in time to attend the exercises. The faculty, graduates, undergraduates, many friends, and relatives of the successful students crowded the theater. The college colors, blue and gold, gave the keynote for most effective decorations. The Hippocratic oath was taken by 49 newly fledged medicos.

The California State Homeopathic Medical Society met, May 14, at the Palace Hotel, San Francisco.

BOOK REVIEWS

Myxedema and the Thyroid Gland.—By JOHN D. GIMLETTE, M.R.C.S. (Eng.), and L.R.C.P. (Lond.). Pp. 121. London: J. & A. Churchill; 1895

This is the inaugural thesis of Mr. GIMLETTE on applying for a license to practice medicine in Lisbon, amplified, before being translated, into a comprehensive treatise on this rare disease. After considering in brief the history of myxedema, the writer takes up its symptomatology and diagnosis, and cites two clinical cases. He then reviews our knowledge of the thyroid gland, quoting HORSLEY, OCCHINI, LANNOIS, SCHIFF, ROGOWITZ, CREDE, ZESAS, GIBSON, and others, in his consideration of the physiology of the gland. The succeeding chapters are devoted to the pathology and treatment of myxedema, and the author succinctly but comprehensively reviews the literature on the subject up to and including the year 1893. Especial attention is given to the attempts at thyroid grafting. The author concludes that both myxedema and sporadic cretinism are due to loss of function of the thyroid gland, and that this lost function can be restored or even established in cases in which it had never before existed.

Principles of Surgery.—By N. SENN, M.D., Ph.D., LL.D.—Second edition, thoroughly revised. Pp. xvi, 656. Phila.: F. A. Davis Co.; London: F. J. Rebman, 1895.

The amount of work that this author has done in the past few years is remarkable. That any one man should have been capable within so short a period of publishing so much that is not only good, but that occupies first rank in the literary productions of the time, is surprising. We all know how much time is occupied by literary work, and how little time one who is actively engaged in surgical practice and teaching can have for this kind of labor.

When the first edition of this work appeared, in 1890, Dr. SENN already had an international reputation, and was still located at Milwaukee. At that time, as he said in the preface to the first edition,

a modern work on the principles of surgery in the English language had become a generally well-recognized necessity. Whether it was simply the necessity of the work, or the remarkably lucid style that made it popular, the fact remains that the work immediately was seized upon by the profession as one of the most important contributions to surgical literature. Five years later, the author in the mean time having removed to Chicago and accepted the professorship in Rush Medical College and in the Chicago Polyclinic, a second edition was found necessary. During these five years the advance in pathology and in surgery had been so marked that almost complete rewriting of the book became necessary. In this way we find much that is new in the present edition.

There is but one criticism to make, and that criticism is not upon the literary value of the work, for that is beyond criticism; but upon the form in which it is presented by the publishers. A work coming from Dr. SENN's pen, and particularly one of as great value as that in question, should have been presented by the publishers in the very finest way possible. The presswork, paper, and general style should have been much better than they are. The very first page is a disappointment, and gives an idea of economizing space that should not be in a work of this character. The author's use of italics throughout the book, while to a certain extent they destroy the general appearance of the page, add very materially to the ease with which the reader appreciates the facts that Dr. SENN desires to emphasize. It is probable that this method was undertaken with a view of bringing out certain facts in such a way that the students who use the work as a text-book cannot fail to obtain the important items; but to a certain extent we believe this also enhances the work to the general reader, for he can readily appreciate the central fact around which the discussion in any particular paragraph of the book centers. This work differs so essentially from the first edition that even those who have the older edition in their libraries can hardly avoid purchasing the revised issue.

Deaf-Mutism.—A Clinical and Pathological Study. By JAMES KERR LOVE, M.D., aural surgeon to the Glasgow Royal Infirmary; honorary aurist to the Glasgow Deaf and Dumb Institution. With chapters on the education and training of deaf-mutes. By W. H. ADDISON, A.C.P., principal of the Glasgow Deaf and Dumb Institution. Pp. xii, 369. Glasgow: James MacLehose & Sons; New York: Macmillan & Co.; 1896. Price \$2.75.

The first chapter of this treatise is upon the general character of deaf-mutes. The deaf-mute is not physically inferior to normal individuals, and has no especial tendency to tuberculosis. Stigmata of degeneration are wanting in him, and his mental character is in no way peculiar. As is well known, the other special senses are particularly acute in the deaf and dumb.

The head measurements of the boys in the Glasgow institution were the only physical measurements which fell below the average of those of hearing boys. This relative diminution of cranial capacity the author accounts for by the theory that the deaf-mute, when he enters school at seven years of age, is like the hearing child at two; that that brain growth, which is due to the rapid development of intelligence in a hearing child between these ages, has progressed more slowly in the deaf child. These

general observations apply only to cases in which deaf-mutism is a single condition, unassociated with idiocy or cerebral defects.

In the second chapter, a particularly clear description is given of the anatomy and physiology of the ear.

In the third chapter it is shown that total deafness is not common in deaf-mutes; hearing for speech exists to a useful extent in about 25 per cent., and cranial conduction is present in nearly all cases.

The conclusions of the fourth chapter are that congenital deafness is responsible for 60 per cent. of the cases of deaf-mutism. Congenital deafness is hereditary, and the marriage of the congenitally deaf and of the hearing members of families severely tainted with congenital deafness should be discouraged.

The author diverges somewhat to state that consanguineous marriages should never take place. While this is so where there is any transmissible taint, the statement that every family has some transmissible taint is too sweeping, and the arguments adduced by the author in defence of his position are inconclusive, and his conclusions are at variance with the generally accepted views of consanguinity in its relation to marriage and heredity.

Chapter V contains tables of statistics compiled by various observers as to the causative factors of acquired deafness. The conclusions from the study of the morbid anatomy of deaf-mutism given in Chapter VI are that acquired deaf-mutism is usually due to disease of the internal ear, secondary to otitis media; less frequently the process comes from the brain, and more rarely still it is primary in the labyrinth.

The changes in congenital deafness are similar, except in such cases as result from malformation or arrested development. Chapters VII and VIII are upon the diagnosis, prognosis, and treatment of deaf-mutism; the remaining chapters (IX-XIII), by the principal of the Glasgow Deaf and Dumb Institution, treat of the subject from the educational standpoint.

When one considers how little has been written about deaf-mutism from a medical standpoint, and how slight is the knowledge of it by medical men generally, the need of the present volume readily becomes evident. No explanation is necessary of the importance of a branch of medicine which makes useful members of society out of individuals who otherwise would be little better than idiots. The present volume, by its clear style, and scientific and scholarly character, is fully qualified to fill an important place in the literature of the subject.

Principles of Bacteriology.—By A. C. ABBOTT, M.D.—Third Edition, enlarged and thoroughly revised. Phila.: Lea Brothers & Co., 1895.

There is little to add to what we have already said with regard to this book. The fact that within four years it should have reached three editions is sufficient indication that it has met a practical want among professional men. Its chief interest is its conciseness. The author has not gone into a diffuse discussion of the position of bacteria or of the disputed points in regard to separate bacilli, but has tried to bring out those that are fully substantiated, and to give in a concise way the methods of conducting bacteriological research. As a laboratory aid, or as a text-book for beginners in the study of bacteriology, this work undoubtedly is all that can be desired.

EDITORS' NOTES

The Third International Psychological Congress will be held in Munich from the 4th to the 7th of August, 1896.

Indirect Advertising.—In Hampton, Ia., recently, the Austin Flint Medical Society passed strong resolutions against advertising. It demanded that editors in that district refrain from publishing notices of surgical preparations, or other news matters containing the names of physicians. As a result the entire press of that region is up in arms against the physicians, and they are getting a very large number of uncomplimentary notices.

The Miami Valley Medical Society held its 37th annual meeting at Loveland, Tuesday. Dr. J. A. THOMPSON, of Cincinnati, presided, with Dr. CON GATCH, of Milford, as secretary. The debt of the defunct Southwestern Ohio Medical Society was paid in full. The election of officers resulted as follows: President, Dr. J. S. COMBS, New Boston; vice-president, Dr. GEORGE H. GOODE, Cincinnati; secretary, Dr. CON GATCH, Milford; treasurer, Dr. J. D. WAKEFIELD, Loveland; censors, Dr. G. L. KREIGER, Madisonville; Dr. R. C. BELT, Milford; Dr. S. LAMBRIGHT, South Lebanon; Dr. G. W. WIRE, Wilmington. The next meeting of the society will be held at Loveland next October.

Pennsylvania State Board of Health.—At the ninth sanitary convention of the State Board of Health of Philadelphia, held in Williamsport, Pa., on May 21, the following order of exercises was observed:

"The Control of Tuberculosis," L. F. FLICK, M.D.; "Diseases of Domestic Animals Communicable to Man," Prof. LEONARD PEARSON, D.V.S., Philadelphia; "The Diagnosis of Diphtheria by Means of Cultures," B. MEADE BOLTON, M.D., Philadelphia, and HERBERT D. PEASE, M.D.; "Flood Conditions in the West Branch of the Susquehanna," G. D. SNYDER, C.E.; "Report on Obstructions in the River at Williamsport," JOHN FULTON, C.E., Johnstown; "The Diphtheria Antitoxin—What It is and What It Does for Us," JOSEPH MCFARLAND, M.D., Philadelphia; annual address, illustrated with the stereopticon; "The Relations of Forests to Sanitary Conditions," J. T. ROTHROCK, M.D., Harrisburg; "The Causes of Insanity," W. E. WRIGHT, M.D., Harrisburg.

Gynecologists Stand for Vivisection.—At the concluding session of the American Gynecological Society resolutions were adopted protesting against the bill now pending in Congress forbidding vivisection in the District of Columbia. The ground of the objection made to the bill is exactly that which has actuated other societies, local and national, to enter protest. Scientific vivisection evidently, according to the opinion of those in a position to know, cannot be as yet dispensed with. Amateur vivisection is rightly condemned.

Health-boards as Instructors of the Public.—The third annual convention of the Illinois State Board of Health Auxiliary Sanitary Association was held in Springfield, that State, on May 21. The president of the association, Dr. WILLIAM E. QUINE, of Chicago, presided, and Dr. ARTHUR R. REYNOLDS read a paper upon "The Duties of Local Boards of Health as Instructors of the Public." In the course of his remarks, Dr. REYNOLDS said: "Local boards should instruct the public frequently of the dangers that lurk in the use of impure water. Local boards may safely teach that the only absolutely pure water is that purified by nature's process—the distillation by solar heat—and given to man from the clouds. It

would be safe to teach that the generous use of pure water, both within and without the body, has never yet done any harm; that the functional ailments that afflict the great host of mankind are in great part due to the fact of imperfect elimination of waste matter, and that generous libations of pure water are a most potent agent to flush them from the body, through the skin, the lungs, the kidneys, and the bowels."

Prof. A. W. PALMER, of the university, followed with a paper on "Water Analysis and the Means Provided by the Illinois University for Making Analyses of the Water Supplies of the State."

Medical Society of New Jersey.—The annual meeting of the Medical Society of New Jersey will be held in Asbury Park, June 23 and 24, 1896. The annual address will be delivered by the President, WILLIAM ELMER, Jr., M.D., on "The Relation of the Physician to Sanitary Science," and the following papers will be read:

"Demonstration of Bassini's Operation," by S. E. MILLIKEN, M.D., New York.—"Clinical Observation." Referring to Auto-intoxication of Gastro-intestinal Origin. PHILIP MARVEL, M.D., New York.—"Fibroid Tumors of the Uterus; Obstructing Labor; Subsequent Disappearance of the Tumors; Remarks on Uterine Fibroids as a Complication of Pregnancy." Dr. GEORGE H. BALLERAY.—Discussion upon subject presented at last annual meeting, "Is the Therapy of Antitoxin Serum, Nuclein Solution, and Thyroid Extracts so fully established as to receive the Indorsement of the Profession?" Dr. ALEX. MCALISTER was appointed to take the leading part in the discussion.—"Antisepsis and Antiseptics from the Standpoint of the General Practitioner." Third Vice-president, Dr. C. R. P. FISHER.—"Chloroform Narcosis." Dr. FLOY McEWAN, Newark.

Dr. WILLIAM PIERSON, of Orange, N. J., is secretary of the society.

Medical and Chirurgical Faculty of Maryland.—At the annual meeting held at Baltimore in April the following officers were elected to serve during the ensuing year: President, Dr. WILLIAM OSLER; vice-presidents, Drs. WILMER BRINTON and RANDOLPH WINSLOW; recording secretary, Dr. JNO. S. FULTON; corresponding secretary, Dr. W. GUY TOWNSEND; reporting secretary, Dr. H. O. REIK; assistant secretary, ROBERT T. WILSON; treasurer, Dr. W. F. A. KEMP.

Pan-American Medical Congress.—The next congress will take place in the City of Mexico, November 16, 17, 18, and 19, 1896. Dr. MANUEL CARMONA Y VALLE has been elected president by the Committee on Organization, Dr. RAFAEL LAVISTA has been elected vice-president, and Dr. EDUARDO LICEAGA, secretary. Those who desire to attend should send their names and addresses to Dr. CHARLES A. L. REED, St. Leger place, Cincinnati, O.

The American Gynecological Society at its recent meeting elected to the presidency the founder of the society, Dr. JAMES R. CHADWICK, of Boston. It was 21 years ago that CHADWICK determined that, young as gynecology was, the time was ripe for forming an association of those whose aim it was to practice it, in order that the world might know that which this country was entitled to. He little realized what would be accomplished in these 21 years in this country, and largely through the efforts of the American Gynecological Society. If, indeed, many radical operations have emanated from members of the society, true it is also that the world is indebted to it for much of its present knowledge in regard to the treatment of the diseases of women; and when we say the world, we not alone have in mind gynecologists of other countries, but we refer as well to the general sur-

geons who are busying themselves with the female pelvis to an extent which most gynecologists would decry. The men who stood with CHADWICK years ago in starting this prosperous and eminent society have, many of them, passed to their reward, and it was a graceful compliment to confer the presidency on the man who fecundated it, so to speak, now that it has reached strong and lusty manhood.

Medical Society of the State of Tennessee.—At the last meeting held at Chattanooga in April the following officers were elected to serve for the ensuing year: President, Dr. G. W. DRAKE, Chattanooga; vice-president, for Middle Tennessee, Dr. W. F. CLARY, Bell Buckle; for East Tennessee, Dr. J. B. F. DICE, Morristown; for West Tennessee, Dr. T. R. MOSS, Dyersburg; treasurer, Dr. D. E. NELSON, Chattanooga; secretary, Dr. C. R. ATCHISON, of Nashville.

Mississippi State Medical Association.—At its recent meeting held in Vicksburg, the Mississippi State Medical Association elected the following named officers to serve during the coming year: President, J. W. GILBERT, Verona; first vice-president, W. M. PAINE, Aberdeen; second vice-president, B. F. DUKE, Moss Point; secretary, J. R. TACKETT, Meridian; assistant secretary, C. H. TRATTER, Bogue Chitto; corresponding secretary, D. T. HUMPHREYS, Erwin; treasurer, J. F. HUNTER, Jackson.

The American Climatological Association elected the following officers at its meeting held in Lakewood, N. J., May 12, 1896: President, Dr. E. FLETCHER INGALS, of Chicago; vice-presidents, Dr. S. A. FISK, of Denver, and Dr. JOHN C. MUNRO, of Boston; secretary and treasurer, Dr. GUY HINSDALE, of Philadelphia. Council: Dr. W. E. FORD, Utica; Dr. ROLAND G. CURTIN, Philadelphia; Dr. J. H. PLATT, Lakewood; Dr. S. E. SOLLY, Colorado Springs; Dr. JAMES B. WALKER, Philadelphia. The next meeting of the association will be held in Washington in 1897.

The Onondaga Medical Society held its annual meeting on May 26, at the Globe Hotel, in Syracuse, in honor of Dr. E. R. MAXSON and Dr. A. J. DALLAS. Dr. ALFRED MERCER acted as toastmaster. The exercises consisted of a tribute to Dr. J. P. DUNLAP, by Dr. GEO. A. EDWARDS, and personal reminiscences and characteristics by Dr. A. J. DALLAS. A eulogy of the late Dr. DUNLAP was given by Dr. JOHN L. HEFFRON. The following papers were read: "Combined Abdominal and Vaginal Section, Advantages Gained by Drainage by this method," Dr. A. B. MILLER; "Adhesions Following Appendicitis, Report of a Case," Dr. GEORGE M. PRICE; "Phlyctenular Diseases of the Eye in Children," Dr. S. B. CRATON; "European Hospitals and Clinics," Dr. D. H. MURRAY; "An Operation for Phimosis," Dr. A. CLIFFORD MERCER.

The St. Lawrence County Medical Society at its meeting at Peck House, Gouverneur, N. Y., on May 18, elected the following officers for the ensuing year: President, Dr. J. H. BROWNLOW, Ogdensburg; vice-president, Dr. J. C. C. WILSON, Canton; treasurer, Dr. J. S. RAYMOND, Ogdensburg; censors, Dr. B. F. SHERMAN and Dr. E. H. BRIDGES, Ogdensburg; Dr. JESSE REYNOLDS, Potsdam.

The Medical Association of Georgia elected the following named officers at its meeting in Augusta, April 15, to serve during the ensuing year: President, Dr. GEO. H. NOBLE, of Atlanta; first vice-

president, Dr. J. BELLORGAN, of Augusta; second vice-president, Dr. R. B. BARRON, of Macon; treasurer, Dr. E. C. GOODRICH, of Augusta; secretary, Dr. R. H. TAYLOR, of Griffin, Ga.

The Iowa State Medical Society elected the following officers at its annual meeting, held in Des Moines, April 15, to serve for the coming year: President, Dr. J. C. SCHRADER, of Iowa City; first vice-president, Dr. ED. HORNIBROOK, of Cherokee; second vice-president, Dr. E. L. BAKER, of Indianola; secretary, Dr. J. U. COKENOWER, of Des Moines; treasurer, Dr. GEO. R. SKINNER, of Cedar Rapids. The next meeting of the society will take place at Marshalltown on the third Wednesday in April, 1897.

The Oklahoma Medical Association held its annual meeting May 14, 1896, at Guthrie, the capital of the Territory. Dr. C. D. ARNOLD, of El Reno, was elected president, and Dr. L. HAYNES BUXTON, of Guthrie, secretary, for the ensuing year. The association is in the fourth year of its existence and gives promise of developing into one of the foremost organizations of the great Southwest.

Vacancies in the Medical Corps of the U. S. Army.—There are at present three vacancies in the Medical Corps of the U. S. Army, and it is expected that at least three more will occur during the present year. As usual, an Army Medical Board will meet in Washington early in October for the examination of candidates. The requirements for admission to the Medical Corps are stated in a circular issued by the Surgeon General of the Army, dated May 21, 1896, and approved by the Secretary of War, as follows:

Permission to appear before the board is obtained by letter to the Secretary of War, which must be in the handwriting of the applicant, giving the date and place of his birth and the place and State of which he is a permanent resident, and inclosing certificates, based on personal acquaintance, from at least two reputable persons as to his citizenship, character, and habits. The candidate must be a citizen of the United States, between 22 and 29 years old, of sound health and good character, and a graduate of some regular medical college, in evidence of which his diploma will be submitted to the board. The scope of the examination will include the morals, habits, physical, and mental qualifications of the candidate, and his general aptitude for service; and the board will report unfavorably should it have a reasonable doubt of his efficiency in any of these particulars.

The physical examination comes first in order, and must be thorough. Candidates who fall below 64 inches in height will be rejected. Each candidate will also be required to certify "that he labors under no mental or physical infirmity or disability which can interfere with the efficient discharge of any duty which may be required." Errors of refraction, when not excessive, and not accompanied by ocular disease, and when correctible by appropriate glasses, are not causes for rejection.

The mental examinations are conducted by both written and oral questions upon:

I. Elementary branches of a common-school education, including arithmetic, the history and geography of the United States, physics, ancient and modern history, and general literature. Candidates claiming especial knowledge of the higher mathematics, ancient or modern languages, drawing, analytical chemistry or branches of natural science, will be examined in those subjects as accomplishments and will receive due credit therefor according to their proficiency.

II. Professional branches, including anatomy, physiology, chemistry, hygiene, pathology and bacteriology, therapeutics and materia medica, surgery, practice of medicine, obstetrics, and the diseases of women and children.

Examinations will also be conducted at the bedside in clinical medicine and surgery, and operations and demonstrations will be made by the candidates upon the cadaver.

Hospital training and practical experience in the practice of medicine, surgery, and obstetrics are essential to candidates seeking admission to the medical corps of the Army, who will be expected to present evidence that they have had

at least one year's hospital experience or the equivalent of this in practice.

To save unnecessary expense to candidates, those who desire it may have a preliminary physical examination and a mental examination in the "elementary branches of a common-school education" by a medical officer of the Army stationed most conveniently for this purpose, who will act under instructions from the Medical Examining Board.

Meetings for the Coming Fortnight.—Massachusetts State Medical Society, at Boston, June 9 and 10. F. W. GOSS, M.D., secretary, Roxbury, Mass.

South Dakota State Medical Society, at Yankton, June 10. W. J. MAYTUM, M.D., secretary, Alexandria, So. Dak.

Minnesota State Medical Society, at Minneapolis, Minn., June 17. I. DONNELLY, M.D., secretary, St. Paul, Minn.

Oregon State Medical Society, at Portland, June 9 and 10. ERNEST F. TUCKER, M.D., secretary, Portland, Ore.

Medical Society of Delaware, at Newark, June 9. WM. C. PIERCE, M.D., secretary, Wilmington, Del.

Kentucky State Medical Society, at Lebanon, June 10, 11, and 12. STEELE BAILEY, M.D., secretary, Stanford, Ky.

Army and Navy Medical Association, at Havana, Ill., June 16, 17, and 18. EDWARD P. BARTLETT, M.D., secretary, Springfield, Ill.

Colorado State Medical Society, at Denver, June 16, 17, and 18. E. R. AXTELL, M.D., secretary, Denver, Col.

Medical Society of New Jersey, at Asbury Park, June 23 and 24. WILLIAM PIERSON, M.D., secretary, Orange, N. J.

Pictures Come High.—An Iowa medical journal publishes biographical sketches of the eminent physicians of Des Moines, at the rate of \$25 for picture and extra-flattering sketch.

Fin de Siecle.—London now has a periodical with the title *Archives of Skiagraphy*, devoted to the uses of the Röntgen rays in medicine.

Society for the Propagation of Frenchmen.—A London correspondent of one of the great New York dailies states that a society has been formed in Paris for the propagation of the French race. Commenting on this the *Standard* says: "No people marry more freely or view family duty more seriously." Nevertheless they are stationary, and this year's census may show them to be losing in population. At the beginning of the century there were 12,000,000 more Frenchmen than there were people in Great Britain. The figures had grown almost equal in 1891, and at present the death rate is at least equal to the birth rate. This is significant in view of the fact that only 500,000 Frenchmen have emigrated, whereas 12,000,000 of Englishmen and Irishmen have left their kingdom. Various remedies have been suggested, because the French condition is alarming at a time when the armaments of Europe demand the service of the whole adult population. It was first proposed to levy a tax upon bachelors, but as bachelors are few in France, this method failed.

This new society proposes to place an extra burden upon the shoulders of all married men who have been derelict in their duty to the State, and to exempt from all taxes the fathers of more than three children. The root of the evil, it appears, is not that the French people do not marry, but because the law requiring the equal division of a man's estate among his sons and daughters has

caused it to be thought a social duty to have as few offspring as possible. It is certain that the new society must contend against the artificial moral sense of the French country people, whose abnormal sense of thrift is now reacting against the continuance of their race.

Revenue from Ohio Physicians.—It is estimated that the revenue from physicians for registration and examinations, under the new law in Ohio, will net a return of about \$50,000 to the Board of Examination.

English Medical Students.—Under the title of "A 'Chiel' on London Medical Students," the *Medical Press and Circular*, London, publishes the following charming scrap of biting sarcasm:

It is sometimes interesting to learn what others think of us; more often it is amusing, and the latter feeling will be the predominant one among medical students in London who have been made the subject of a critical description by the London correspondent of the *New York Sun*. Every one on this side of the Atlantic knows that America out-distances everybody and everything in "this best of all possible worlds"; at least, it is customary to believe that this is the case because we are told so—by Americans. Hence it is not surprising to learn that, in common with everything else in this country, the London medical students hopelessly and deplorably form one more illustration of the incapacity of all things English. The choice criticism to which we refer is as follows: "The ignorance and unskillfulness of the average English practitioner as turned out of the medical colleges are something appalling. I have attended two or three clinics in the principal London hospitals for the purpose of comparing them, from a layman's point of view, with Bellevue, the Massachusetts General, and other American institutions. The methods of instructing the students are, of course, practically the same in both countries. What most impressed me was the low grade of intelligence, the dense stupidity, in fact, of many of the young men to whose care the ills of humanity in these islands were about to be confided. I have in mind, particularly, a class of young men about to pass their final examinations previous to beginning practice. I watched them undertake, one by one, to diagnose a long series of cases in the outpatient department of a great hospital. It is no self-conceit to say that with only a layman's knowledge I should have come nearer the mark in half the cases. Their book knowledge may be complete, as their diplomas will certify, but the practical application of it, the native intelligence which makes it invaluable, was sadly deficient." This is all very sad—for the London medical student, but he must not be downhearted. All his fellow countrymen are in the "same box" with himself. It is quite evident that the native intelligence of English people departed with the English emigrants who went to colonize America. Somehow, however, an English nation has still had the audacity to exist, and among other things, with considerable presumption, young Englishmen are taught to be practitioners of medicine and surgery. But in view of the criticism above quoted, the sooner that this system is put a stop to the better. One Englishman, it used to be said, was a match for three Frenchmen—in battle; this saying may be varied. It will now have to be said, that one American layman knows as much as a class of English students—in medicine.

The Missouri State Medical Association elected the following officers at its meeting held in Sedalia, May 19, 1896: President, JOHN H. DUNCAN, M.D., of St. Louis; first vice-president, C. H. WALLACE, M.D., St. Joseph; second vice-president, JOHN M. LANGSDALE, M.D., Kansas City; third vice-president, J. J. RUSSELL, M.D., California; fourth vice-president, THOMAS CHOWNING, M.D., Hannibal; fifth vice-president, J. H. BRITTS, M.D., Clinton; recording secretary, JABEZ N. JACKSON, M.D., Kansas City; assistant recording secretary, THOS. HALL, M.D., Marshall; corresponding secretary, F. DRESSEL, M.D., Sedalia; treasurer, W. E. EVANS, M.D., Boonville.

Illinois State Medical Society.—At the forty-sixth annual meeting of the Illinois State Medical Society held at Ottawa, May 19, 20, and 21, the following

officers were elected for the ensuing year: President, A. C. CORR, Carlinville; first vice-president, J. M. G. CARTER, Waukegan; second vice-president, T. J. PITNER, Jacksonville; permanent secretary, JOHN B. HAMILTON, Chicago; treasurer, GEO. N. KREIDER, Springfield. The next meeting will be held at East St. Louis, third Tuesday in May, 1897.

The Kansas Medical Society elected the following officers at its recent meeting held in Topeka: President, Dr. F. M. DAILY, of Beloit; first vice-president, Dr. H. Z. GILL, of Pittsburg; second vice-president, Dr. MELVIN COLLINS, of Oxford; recording secretary, Dr. G. A. WALL (for 3 years); corresponding secretary, W. E. McVEY, Topeka; librarian, Dr. S. G. STEWART, Topeka.

District of Columbia Medical Act Passed.—The bill to regulate the practice of medicine in the District of Columbia has passed both Houses of Congress. The measure provides for the creation of a board of medical supervisors, consisting of the presidents of the three boards of medical examiners, and two persons, not physicians, one of whom shall be learned in the law, to be appointed by the District Commissioners. No more than two members of the board shall be adherents of any one system of medical practice. The provisions of the act do not apply to the commissioned surgeons of the United States Army, Navy, or Marine Hospital service, nor to regularly licensed physicians and surgeons in actual consultation from several other States and Territories.

The "Mussuek" Discarded.—As a safeguard against a recurrence of cholera and enteric fever in India, the authorities have issued orders prohibiting the use of the "mussuek" (sheepskin) as a means of conveying water used for drinking purposes. The vessels that will be used are of metal, and all water consumed must be boiled.

Personal.—Dr. WOODS HUTCHINSON, of Iowa City, Ia., has been elected to the chair of comparative pathology at the University of Buffalo.

Mr. H. C. FRICK, of Pittsburg, will build a hospital for the treatment of children's diseases in that city, at a cost of \$50,000.

Dr. EGBERT GUERNSEY, president of the Medical Board of the Metropolitan Hospital on Blackwell's Island, was entertained at dinner at the Union League Club on May 27, by the members of the Medical Board and Alumni Association of the hospital. The occasion was the celebration of the fiftieth year since Dr. GUERNSEY left the Medical College of the University of the City of New York to begin the practice of medicine. Dr. ALFRED K. HILLS was chairman of the Committee of Arrangements. Among those who spoke at the dinner were: Gen. JAMES R. O'BEIRNE, for the Charities Commissioners; Dr. WILLIAM H. WATSON, of Utica, for the State Regents; WILLIAM VAN NAMEE, of Middletown, who served for 19 years with Dr. GUERNSEY as one of the trustees of the Middletown Asylum; Dr. C. L. BAGG, the vice-president of the Medical Board of the Metropolitan Hospital, for the Board; Dr. B. G. CARLETON, for the Alumni Association; Dr. GEORGE T. STEWART, the present chief of the house staff; and Professor M. LEAL.

Obituary.—Professor Sir J. RUSSELL REYNOLDS, M.D., the celebrated English physician, author, and lecturer, Physician-in-Ordinary to Her Majesty's Household, died in London, May 29, aged 68 years. Professor REYNOLDS was born in Romsey, Hamp-

shire, in 1828, and was a grandson of HENRY REVOLL REYNOLDS, M. D., who was Physician-in-Ordinary to His Majesty GEORGE III. Dr. REYNOLDS was educated in University College, London, and was graduated from the University of London, M. B., in 1851, with honors. He was appointed Physician-in-Ordinary to Her Majesty's Household in 1878, and was made a baronet in 1895. He was a member of many medical bodies, and had contributed largely to the literature of his profession.—Dr. SAMUEL B. IRWIN, in Manahawkin, N. J., on May 19, aged 74 years. He was graduated from the Jefferson Medical College of Philadelphia, and had practised his profession in Camden, Mt. Holly, and Manahawkin for 40 years.—Dr. MICHAEL RETEL, in Buffalo, on May 20, aged 38 years. He was graduated from the Buffalo Medical College, and from the Bellevue Hospital, N. Y. Dr. J. B. RAYNES, of West Lebanon, N. H., was drowned by the upsetting of his canoe at Attean Lake, near Holeb, Me., on May 23.—Dr. CHARLES F. MUSSIGBROD, of Butte, Mont., in Berlin, Germany, on May 1, aged 81 years.—Dr. JOHN F. MCCULLOUGH, in York, Pa., on May 21, aged 65 years.—Dr. CROSBY A. PERRY, of Readsboro, Vt., on May 25, aged 57 years.—Dr. JAMES I. ROOKER, at Indianapolis, Ind., on May 21, aged 70 years. He was the president of the Board of Pension Examiners. During the war he was assistant surgeon of the Eleventh Indiana Infantry.—Dr. G. WALLACE KELLY, of Boston, Mass., in Los Angeles, Cal., on May 21, aged 40 years.—Dr. ROBERT LECKY, in Richmond, Va., on May 25, aged 63 years.—Dr. ROBERT E. NELSON, of Cumberland County, Va., at Columbia, in that State, on May 20, aged 77 years.—Dr. F. JENKINS PURNELL, at Bayview, Md., on May 22.—Dr. JOS. L. BAUER, in St. Louis, Mo., on May 22, aged 42 years. He was born in Brooklyn, N. Y., and was graduated from the Missouri Medical College.—Dr. J. H. HARTMAN, in Pittsburgh, on May 21, aged 57 years.

PUBLISHERS' DEPARTMENT

PECK'S EAR-DRUM

A correspondent asks: "Where can we send to get Peck's Patent Ear-drums, an invention for enabling people to hear who are deaf, slightly or otherwise?" Write to F. HISCOX, 853 Broadway, N. Y., stating cause and particulars of your deafness and he will give you all the points desired. The invention does not require to be held in position; and while it can be readily removed or inserted by the patients themselves, and cannot be seen, it is said to be curative in action and comfortable to wear.

EPILEPSY

Since BROWN-SÉQUARD formulated his celebrated mixture of the bromides these have everywhere been regarded as the "sheet-anchor" in the treatment of epilepsy, and whatever progress has been made has only been in the line of additions to these efficient remedies. HAMMOND ("Diseases of the Nervous System") says: "The treatment of epilepsy rests solely on experience. Among medical remedies the bromides stand pre-eminent, and should be thoroughly tried first in every case." He adds: "HERPIN several years ago called attention to the salts of zinc in the treatment of epilepsy. I have used the lactate and still more recently the bromide with very definitely beneficial results." LAUDER BRUNTON

says of the bromide of potassium: "It is especially beneficial in epilepsy, and, by its use, convulsions can almost always be lessened, if not entirely stopped" ("Therapeutics," etc., p. 521). ALLEN McLANE HAMILTON says of the treatment of epilepsy: "No general remedies have been of so much service as the bromides, especially those of sodium, ammonium, and potassium, and since their introduction, about twenty years ago, the number of cures has greatly increased, and the prognosis improved as our knowledge derived from experimental therapeutics has broadened" ("Reference Handbook," vol. II, p. 708). The literature upon this subject is so vast that volumes might be filled with quotations from standard authorities only, but the desire is to make the briefest reference to these with the view of calling attention to "Neurosine," the elegant preparation of the usual bromides, together with bromide of zinc and the pure and reliable extracts of cannabis indica, henbane, and belladonna. Since TROUSSEAU announced the great efficacy of belladonna in the "*petit mal*," it has held high rank as an admirable addition to the bromides. Of cannabis indica and henbane it is well said: "In morbid states of the system it has been found to cause sleep, to allay spasm, to compose nervous disquietude, and to relieve pain. In this respect it resembles opium, but it differs from that narcotic in not diminishing the appetite, checking the secretions, or constipating the bowels" (U. S. Disp., p. 351). It is only reliable when properly prepared from a pure specimen of which "Neurosine" is composed.

BONE-MARROW IN ANEMIA

Commencing on the opposite page and following on the two successive pages will be found the announcement of the American Therapeutic Co., giving in condensed form the results of twenty cases treated in the Hudson River State Hospital. These results were embodied in an article by Drs. CHAS. H. LANGDON and THOMAS E. BAMFORD and recently published in the *State Hospitals' Bulletin*. The cases came under the direct supervision of Dr. CHAS. W. PILGRIM, the superintendent of the Hudson River State Hospital, Poughkeepsie, N. Y. Dr. PILGRIM has expressed to the American Therapeutic Co. his great satisfaction of the results of the exhaustive tests made with their preparation of bone-marrow, "Carnogen," in the cases treated.

These statistics are especially valuable in that the treatment of anemia by bone-marrow is now being so generally adopted by the medical profession that full information on the subject is gladly welcomed.

The Society of French Physicians has decided to organize a fund for the relief of the widows and orphans of medical men in France.

German University Statistics.—According to the new Universitäts-Kalender, the number of medical students in attendance at the various German universities during the winter session of 1895-96 amounted to 11,754, distributed as follows: Vienna, 1727; Munich, 1466; Berlin, 1258; Würzburg, 788; Leipzig, 699; Graz, 636; Erlangen, 472; Freiburg, 380; Greifswald, 351; Breslau, 316; Strassburg, 312; Zürich, 309; Bonn, 270; Kiel, 264; Halle, 252; Genf, 240; Marburg, 226; Göttingen, 225; Königsberg, 223; Jena, 207; Tübingen, 206; Bern, 203; Heidelberg, 201; Giessen, 154; Basel, 151; Lucerne, 120; Rostock, 98.

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ENURESIS AND ITS TREATMENT

ONE of the best articles on this subject that have recently appeared is that by Dr. M. MENDELSON in the *Berliner klinische Wochenschrift*, November 25 and December 9, 1895.

Enuresis means simply an involuntary discharge of the urine; hence every form of involuntary urination is enuresis. According to FOSTER'S "Encyclopædic Medical Dictionary" we have:

Enuresis atonica—Enuresis from debility.
E. continua—Incontinence of urine both day and night.
E. diurna—Incontinence of urine by day.
E. irritata—Enuresis from irritability.
E. mechanica—Enuresis from mechanical causes.
E. nocturna—Nocturnal enuresis.
E. paralytica—E. associated with paralysis of bladder.
E. spastica—E. due to spasm of bladder.

Thus we have a term which may be applied to very different conditions. There is a wide difference between the condition represented in a child, with a bladder possessing a strong detrusor and a relatively weak sphincter vesicæ, who is unfortunate enough to suffer from enuresis nocturna, and that represented by the paralytic from whose bladder, incapable of being emptied voluntarily, the urine dribbles from overflow. And yet the term may be applied to either condition. In general, however, by enuresis we understand the condition found most frequently in children where there is nocturnal incontinence or, also, diurnal incontinence of urine, due essentially to a functional disturbance. The term incontinence is more apt to be applied to conditions in which there is a mechanical defect, and, according to MENDELSON, we speak of "true incontinence" if the condition is due to defect of the sphincter, and of "false or paradoxical incontinence" where the palsied bladder-wall is at fault. In the former the bladder may be found to be always empty; in the latter, always full.

The purely functional condition where the urine

and urinary apparatus are normal, which finds expression in nocturnal enuresis, is essentially a disease of childhood, and ordinarily ceases with the establishment of puberty. Out of thirty-two patients with this trouble MENDELSON found only three were above the age of 14 years, and of these none had reached the age of 20. The greater number of cases were in males. The trouble may begin in the earliest years of life; that is, the child never learns to hold the urine, while ordinarily, by the time the teething process is over, children have learned to retain the urine for a sufficient interval. On the other hand the trouble may begin in the later years of childhood, especially in children weakened by an attack of illness.

MENDELSON thinks that too many theories have been constructed to explain this phenomenon; though there may be individual cases in which an underlying cause may be found, he believes that the phenomenon in the great majority of cases admits of a simple explanation. In many children the vesical sphincter is not sufficiently developed to be able, without the aid of the impulse of the will, to withstand the impulse communicated by the detrusor which has been stimulated to action, by the reflex, from the entrance of urine into the bladder-neck. This weakness passes off with the development of the prostate and the additional aid given by this organ in its intimate connection with the internal sphincter; and while in children the impulse to urinate comes at a certain distention of the bladder, by the entrance of urine into the bladder-neck—thus setting free a reflex stimulus of the detrusor muscle, the contraction of which and the consequent spontaneous emptying of the bladder may be successfully combated during waking hours by the aid of the will and of the accessory cut-off muscle until a favor-

able opportunity—this sphincter in sleep may be unable alone to offer sufficient opposition. Thus children, who day after day are accustomed to urinate at relatively short intervals and at the first warning impulse, in the course of the disproportionately long sleep, are not apt to have that control which comes with the practice during waking hours of holding the urine after an impulse coming from the reflex contraction of the detrusor has taken place. This combating of the impulse of the contracting detrusor forms a closed circle; thus the bladder is distended to a certain point and urine enters the vesical neck. This gives the impulse to the detrusor which on contracting throws more urine into the vesical neck, causing a reflex contraction of the sphincter which overcomes the impulse from the detrusor.

There are two periods of the night at which the involuntary act is apt to take place—in the early portion of the night, during deep sleep, and the child does not wake at the accident; or at a later period, near dawn, when a longer time has elapsed. At this time, though sleep is less profound, the warning of a full bladder is apt to cause dreams, in which the child is aware of the desire to urinate, and, while dreaming that he has risen, or that the opportunity is present, relaxes the sphincter, and is then apt to awaken only to find a copious discharge of urine in the bed. Some children may further urinate involuntarily twice during the night—first, at the earlier period, during the profound sleep, and then later, toward dawn. The shame which an older child would naturally feel, and the scorn and derision in which he is held, the treatment to which he is often apt to be subjected, only result in making him timid and in aggravating the difficulty. The condition may go on further, so that even during the day enuresis may occur.

For treatment MENDELSON advises three essential plans:

1. Regulation of the amount of fluid that the child is to take and the time for taking. In severe cases no fluid is to be allowed after noontime, the supper should be plain and nourishing. Sometimes idiosyncrasies may be found in the matter of the kind of fluids which aggravate the trouble, but fluids containing alcohol and carbonic acid are essentially bad and should be prohibited. The child should be instructed in the regular performance of micturition at stated and regular intervals, and all other habits, hours for meals and time of going to stool, should in like manner be regulated. In milder cases this is sufficient.

2. A further and very important aid is to raise the

foot of the bed so that it stands considerably higher than the head. In this way the urine as it flows from the ureters occupies the posterior portion of the bladder, and gravitates toward the fundus, and is thus longer in entering the vesical neck. For this plan he claims excellent results, the enuresis quickly ceasing in many cases. He advises a continuance of this position for 8 to 14 days after cessation of the condition, and a gradual lowering of the bed to the horizontal, taking 8 to 14 days in its performance. A return to this method may again be necessary.

3. For medicine he recommends the tincture of *rhus aromatica*, 15-drop doses at noon, evening, and bedtime, and believes its efficiency consists in allaying the sensitiveness of the bladder-neck.

As additional treatment the faradic current in very weak dosage, applied to the bladder-neck, beginning with a current that can scarcely be perceived, and at no time so strong as to cause discomfort, he looks upon as a valuable adjunct.

MENDELSON mentions the treatment by *bella-donna* in increasing dosage, as laid down by TROUSSEAU, and for some cases finds chloral hydrate of use.

All mechanical methods which have been recommended—as a knotted towel in the middle of the patient's back to keep him on the side; pressure to perineum, to penis; closing the prepuce by collodion, etc.—he characterizes as cruel and as having a bad effect upon the child's mental condition. He also condemns nitrate of silver to the deep urethra, but believes small soft Nélaton catheters to be useful in some cases. The child should be guarded against petty tyranny and teasing. The general health should be supervised; fresh air, change of air, exercise, cold bathing, etc., may be found to be necessary.

An Honor Worthily Conferred.—At the millennium of the university of Budapest an honorary degree was conferred on Sir JOSEPH LISTER. Rarely has a man in the lifetime of the majority of the readers of the BULLETIN deserved honor so signally as has LISTER. While the system which he originated, to all intents and purposes, has been altered for the better, we should never forget that it is to his genius that we are indebted for many of the measures which to-day enable us to avoid septic infection. Unquestionably honor belongs to him the exact nature of which we of this generation of medical men who rarely witness sepsis are too prone to forget. The oldest university in the world devoted to medicine as well as to the allied sciences has honored itself in remembering the claims of LISTER to honor.

ORIGINAL CONTRIBUTIONS

A CLINICAL STUDY OF INJECTIONS OF IODOFORM-GLYCERIN IN TUBERCULOUS OSTEOMYELITIS*

By HARRY M. SHERMAN, A.M., M.D.

Orthopedic Surgeon to the Children's Hospital, San Francisco, Cal.

And AGNES WALKER, M.D.

Late Interns Children's Hospital

"IT is natural for man to indulge in the illusions of hope;" and impelled by a hope that I might find, in my own experience, something to substantiate the statements of some others regarding the value of iodoform in tuberculosis of bones and joints, I began the little series of treatments here reported. It is true that I am making a somewhat tardy report, tardy in that the majority of you have long had well-defined opinions, based on experience in the matter. But before beginning my own systematic trials of the method, I had patiently waited for a definite statement from an American source, and in waiting I had lost time. I do not mean to say that American journals contained nothing concerning the matter; on the contrary, there was a good deal; but most of it was in a form that led me to reject it as an authoritative enunciation, and the claims of the rest, in the first place, seemed to me extravagant, and in the second place induced in me a desire to know if they might possibly be true and a hope that enough of them might be true to warrant the use of the method in certain cases.

The time covered in the trial was the three years beginning January, 1893. The number of cases submitted to the treatment was 20, and these represented 15 hips, 2 knees, 2 ankles, and 1 elbow. Up to the middle of 1894 (that is, for the first half of the three years) the intention and effort always was to deposit the iodoform in the joint cavity, or the intimate periarticular tissues. After the middle of 1894 the injections have been into the diseased bone itself—intra-osseous injections. It chanced that there was a total of 81 intra- or peri-articular injections given, and a total, likewise, of 81 intra-osseous injections, and 2 injections into the evacuated cavities of tuberculous abscesses, making the entire number of injections 164. In each case and at each injection note was made of the following points:

1. The location and direction of the puncture by the needle, the depth of its penetration, and the character of the tissues through which it passed, so far as this could be estimated.
2. The amount of iodoform, suspended in glycerin, injected.
3. Whether there was or was not a reflux of the iodoform-glycerin through the puncture-hole after the removal of the needle.
4. Whether there was or was not pain following the injection, and the location of it.

5. Whether there was or was not a general reaction following the injection.

In all, a uniform mixture of iodoform and glycerin, 10 per cent. of the former to 90 per cent. of the latter, both by weight, has been used. In the first series of treatments, the intra- and peri-articular cases, no special effort was made to have the mixture sterile, but I was fortunate enough to have no pyogenic accident, all abscesses that developed being chronic and tuberculous. For the intra-osseous cases I had the iodoform-glycerin always sterilized by exposure to the temperature of a boiling-water bath for two hours, and, as iodoform does not volatilize below 239° F., nor glycerin boil below 554° F., I never had any decomposition of either. No bacterioscopic examinations of the product were made, but clinically the mixture was always sterile. In the intra- and peri-articular cases an ordinary syringe, similar to a hypodermic syringe and with an ordinary leather packing, was used. The syringe held ½ oz. When it came to the intra-osseous cases I found it necessary to have special apparatus. I had a needle made similar to that described by SCHÜLLER. It is of very strong steel, and has a cannula fitting the bore closely and ground flush with the bevel of the needle-point. The syringe was made with an extra heavy cylinder of glass, to hold 2 oz., and I was obliged to fit a ratchet on the piston-rod, and a pinion-wire key to develop the force necessary to drive the iodoform-glycerin through the cancellous bone. In the intra- and peri-articular cases it was not difficult to imagine the location and distribution of the mixture in the tissues, but in the intra-osseous cases a little investigation was necessary. It is a very easy matter to thrust the needle through tuberculous bone, for there is absolutely no resistance from the wasted skeleton of the bone itself. If the bone be removed from the body immediately after the injection, and sawn so as to lay open the puncture track, it reminds one somewhat of the track of a bullet through wood. The osseous trabeculae are broken, upset, and pushed aside, and the track does not collapse on withdrawal of the needle. The iodoform-glycerin, forced from the needle-point, follows the direction of least resistance, and that is, backward along the sides of the needle; but there is a distribution of it through the cancelli to a varying distance on all sides of the puncture, the spongy tuberculous granulation tissue being partly carried before it. I tried to see if anything of the kind could be done in normal bone, and used a sheep's femur for the purpose. The texture of the cancellous tissue of sheep's bone seemed a little finer than that of the human bone, but the bone itself was not so hard. The needle was driven in with a mallet and without any difficulty. The injection of even the minutest portion of iodoform-glycerin was an absolute impossibility; the cancelli were so full of firm, adherent medulla that there was no room at all for any foreign substance, and the needle was held in its place as tightly as a nail in a board.

* Read before the American Orthopedic Association at Buffalo, N. Y., May 20, 1896.

In the intra- and peri-articular injections the joint was approached from different sides, but in the hip cases, which were the largest number, the usual approach was by the method suggested by VON BÜGNER. A point was found on the inner border of the sartorius muscle and on a level with the anterior superior iliac spine. A needle passed directly backward here will pierce the capsule and impinge in the neck. I modified the plan slightly by making the puncture at the outer border of the sartorius, directing the needle backward and a little inward so that when it reached bone the point should be under the VON BÜGNER point of entry. Moreover, the needle was so held that the bevel on the end was next the bone, thus endeavoring to have the opening in the end entirely within the capsule. If, after an injection made in this way, there was no reflux and there was pain in the knee, it was arbitrarily assumed that an intra-articular injection had been made. In the intra-osseous injections, too, the bone was punctured from different sides, but the usual route was through the trochanter and up into the neck and head, that being the most common site of the primary focus of the infection in the bone. In these injections it was generally possible to appreciate whether the needle-point was passing through soft tissues, cartilage, or bone, and also the firmness of the bone. In this way a very fair estimate could be made of the extent and severity of the lesion.

* * *

Abstract of the Records of the Individual Cases

By AGNES WALKER, M.D.

Intra- and Peri-articular Injections.—Case I.—Boy aged 8 years. Hip disease, second stage; chronic type; abscess.

Limb was in good position and boy in bed with traction on. There were 16 intra- or peri-articular injections, each of 1 dr. of the iodoform-glycerin; in but 4 was there any reflux; pain always followed and was located at the hip and knee; there was usually a slight reaction, but never above 103° F., and after five injections there was no reaction. Early in the treatment an abscess developed near the anterior superior iliac spine, but was resorbed. After the resorption of the abscess he was got up on crutches and a traction splint. At the end of 18 months he was in excellent general condition, and this form of injection was suspended. There had been much improvement, but no more than might have occurred under protective methods alone.

Case II.—Boy, aged 4 years. Knee disease, severe chronic type; no abscess.

Limb was in a plaster-of-paris splint. There were five intra-articular injections, each of 1 dr. After none was there reflux; there was always pain in the knee, and there was always, but once, a slight reaction. At the end of 18 months the swelling had diminished and there was no pain when the limb was at rest, but there was joint rigidity and tenderness, and this form of injection was suspended. Here, too, there had been improvement, but not an exceptional amount.

Case III.—Girl, aged 8 years. Hip disease, second stage; mild type; no abscess.

The joint permitted 97° flexion, 170° extension and 20° abduction. There was 1½ in. shortening. There were 6 intra-articular injections, each of 50 min. to 1 dr., extending over a period of eight months. There was no reflux, always pain in hip and knee, and never any reaction. At the end of the eight months there had been a gain in extension, a loss in flexion (46° as against 97°), and a loss in abduction (11° as against 20°), and some gain in rotation. The child left the hospital on crutches and wearing a splint.

Case IV.—Girl, aged 5½ years. Ankle disease, severe type; but the lesion seemed to be confined to the astragalus. Motion was very limited. There were three intra-articular injections, each from 1 to 1½ dr., at intervals of five or six

weeks. There was always pain after them, but no definite record of reaction. There was no therapeutic result, and this form of injection was suspended.

Case V.—Girl, aged 11 years. Elbow disease, chronic type. Flexion permitted to 61°, extension to 143°, i.e., about 25° of motion. Eleven intra- and peri-articular injections, each from 40 min. to 1 dr., were given, the joint being approached from all sides. There was little or no reflux, pain was in the elbow, and reaction was always slight. At the end of these there was some less swelling, but about the same amount of tenderness, flexion 74° and extension 160°, a small gain in each. This form of injection was here suspended.

Case VI.—Boy, aged 5½ years. Hip disease, second stage; mild type; no abscess. He was kept in bed with traction on. Nine intra-articular injections were given, each about 1 dr. There was little or no reflux, pain was referred to the hip, once to the knee, and there was practically no reaction. The treatment covered seven months, and shortly after the last injection he left the hospital, walking on his traction splint. Two months later he was seen, was still on his splint and in good condition. He is reported now, two years later, as being perfectly well, with a good joint, and but ¾-in. shortening and very slight limp. This case certainly ran rather a short course.

Case VII.—Boy, aged 6 years. Hip disease, second stage; severe type; no abscess.

The boy was in bed, and the limb was on an inclined plane, with traction on. Eight intra-articular injections were given, each about 1 dr. There was but twice any reflux, pain was referred to the hip, once to the knee, and three times there was marked reaction, the temperature once reaching 104° F. During treatment an abscess developed anterior to the hip and opened spontaneously; it left sinuses which persisted, were followed up into the joint, and the bone found to be diseased and soft, and so an excision was done. Healing was slow but uneventful, and the boy is now well, but does not, as yet, use the limb. Here the type of the disease was severe, and the injections useless if not harmful.

Case VIII.—Boy, aged 6 years. Hip disease, second stage; severe type.

The limb was fixed in a position of 30° flexion, and complete external rotation. There was a fullness in the groin. Six intra-articular injections were given, each about 1 dr. There was but once reflux; there was pain in the hip only; and reaction but twice, and then slight. The condition of the hip gradually grew worse; the swelling proved to be an abscess, which burrowed up into the pelvis; and excision was finally done. Healing was uneventful. The child is reported now, two years after leaving hospital, as being in excellent condition with a limb 1¼ in. short, but one on which he can walk without stick or crutch.

Case IX.—Boy, aged 3½ years. Knee disease. The disease was of a rather severe type, with a tuberculous abscess occupying the joint and burrowing down the front of the leg. Three intra-articular injections were made, each of 45 min., and each time after a washing-out of the joint with boric-acid solution. The effect of the treatment was to control pain and to slightly increase motion. Shortly after the last injection tuberculous meningitis developed and ended fatally.

Case X.—Boy, aged 7 years. Hip disease, second stage. The type was mild, but there was some articular thickening. He was kept in bed, with traction on. Nine intra-articular injections were given, two of ½ dr. each, the others 1 dr. There was no reflux; pain was referred to hip and knee; twice he had severe reactions, and once the reaction temperature of 104° ran up to 108° and varicella, then epidemic in the hospital, developed. At the end of the treatment he left the hospital on splint and crutches, with the joint quite firmly fixed in a position of 30° flexion. In this case there had been, apparently, improvement. His present condition, two years after leaving the hospital, is exceptionally good, the joint showing, on careful examination, practically no trace of having been affected.

Intra-osseous Injections.—Case I of last series.—Five injections were given, all into the femoral neck and head, each of 2 dr. There was no reflux, pain was in hip and knee, and reaction was slight. In each instance the bone had been easily penetrated by the needle, but was, at the same time, able to support the weight of the body. Two months after the last injection he left the hospital, wearing no splint, with full extension and 50° flexion and ½-in. shortening. The total amount of iodoform used on this boy was 154 grn. Every effort to trace him and learn his present condition, a year and a half after leaving the hospital, has failed.

Case II of last series.—Thirteen injections were given into the lower femoral epiphysis. Smallest amount, 1 dr.; largest amount, 3 dr.; average amount, 2 dr. There was slight reflux, pain was in knee, and reaction was slight. The bone was of varying consistence, but always penetrable.

Shortly after the last injection he was taken from the hospital wearing a leather knee-splint and a Thomas walking-splint. The knee was quite but not entirely rigid. The total amount of iodoform used on this boy was 176 grn. It has not been possible to trace him since.

Case IV of last series.—Three injections into the astragalus were given, each of 1-1½ dr. Reflux was insignificant, pain usually severe, and reaction slight. Nothing was being gained by the treatment; tuberculous abscess formed, pointed, and opened; and it was decided to remove the astragalus, as that bone seemed to be the only one involved. The operation disclosed, however, such extensive disease of the foot and the medulla of the tibia, that amputation had to be done.

Case V of last series.—Four injections into the bones at the elbow were made, each from 1-2 dr. There was little reflux, pain was in the elbow, and there was no reaction. The bone was always easily penetrated. During the whole of treatment the arm had been in a plaster-of-paris splint, and at the end there was a slight recognizable improvement, such as a gain of 13° flexion and 17° extension. The total amount of iodoform used was 92 grn. Shortly after the last injection the parents took her from the hospital, and it has not been possible to find her since.

Case XI.—Girl aged 8 years. Old hip disease, with discharging sinuses. Two injections were given, each of 2 dr., one into femoral neck, one into wall of acetabulum. The result not good and excision was done. At present, 20 months after operation, the child is dying of general tuberculosis.

Case XII.—Boy, aged 9 years. Hip disease, second stage; no abscess. Three injections were given—one of 2 dr. into femoral neck, finding bone very hard; one of 4 dr. and one of 2 dr. into tuberculous bone in pelvis, anterior and inferior to acetabulum. There was no reflux, pain was in hip and knee, and there was no reaction. After the last injection there was an indurated and tender swelling at the point of puncture. An incision disclosed the iodoform in the track of the needle-puncture, but no pus. Much diseased bone was found, and this was removed, the operation being practically an excision. Healing has been slow, but is complete. Use of the limb has not yet begun.

Case XIII.—Boy, aged 5½ years. Hip disease, second stage; no abscess.

Five injections were given, penetrating the femoral neck in various directions, four of 2 dr. each, and one of 4 dr. There was no reflux; pain is not recorded; reaction moderate, and once absent entirely. At the beginning there had been little or no induration or swelling of tissues around the joint. Two weeks after the last injection a tuberculous abscess developed, though there had been a slight gain in joint-motion. Excision of the hip was done, and the boy died the following day. The bone removed showed no evidence of any response to the action of the iodoform.

Case XIV.—Boy, aged 5 years. Hip disease, second stage; no abscess;—and also a vertebral tuberculosis. Nine injections were given into the femoral neck and head—six of 2 dr., one of 3 dr., and two of 4 dr. The bone was hard in some places and soft in others. There was never reflux, pain was in hip and knee, and reaction was slight or absent. His general condition rapidly deteriorated, and the local condition as well. Hip-excision was done; the head of the femur was entirely disintegrated. There was perforation of the floor of the acetabulum, and an abscess in the pelvis. The wound has just healed, a year after the operation. The amount of iodoform used in this case was 138 grn.

Case XV.—Girl, aged 8 years. Hip disease, with a discharging sinus which did not connect with the joint. Sinus was laid open and curetted and wound stitched. After firm union had taken place eight injections were given into the femoral neck and trochanter—five of 2 dr., and two of 4 dr.; the amount of the eighth injection was not noted. A slight reflux followed two of the injections; pain was felt in the hip only, and the reaction was considerable on only one occasion. Several small tuberculous abscesses developed about both hip and knee, and no benefit resulted from the injections. The abscesses were opened and curetted, and the injections discontinued. The child is still wearing a splint, 13 months after last injection. Over 108 grn. of iodoform were used in this case.

Case XVI.—Girl, aged 6 years. Hip disease, second stage; no abscess. Only two injections of 2 dr. each were given, as both general and local conditions commenced to deteriorate very rapidly, and hip-excision became necessary. At the time of operation the femoral head, neck, and trochanter were found to have been largely absorbed and almost detached from the shaft of the bone. The wound healed firmly and the child left the hospital on crutches. At the present time the hip is somewhat flexed, and there is a slight discharge from the site of the operation, where the cicatrix has broken down.

Case XVII.—Boy, aged 5 years. Hip disease, third stage;

abscess. Thirteen injections were given—11 into the femoral neck, the bone being quite soft, and 2 into the cavity of an abscess which formed about the joint, and was evacuated twice. As this abscess was thought to be aggravated by the injections they were discontinued, and the boy remained in bed for six months, then left the hospital on splint and crutches, which he is still wearing at present time. Over 150 grn. of iodoform were used in this case.

Case XVIII.—Boy, aged 4 years. Tarsal disease; small sinus. Two injections of 2 dr. were given, and were followed by severe pain and some reaction. The injections were made into the center of the tarsus; they appeared to have little or no effect on the course of the disease, and the foot finally healed after a year's rest in a plaster splint.

Case XIX.—Boy, aged 6 years. Hip disease, third stage; abscess. First injection was made through an aspirator into the cavity of an evacuated abscess. The second injection was a double one, ½ dr. being injected into the abscess-cavity, and 2 dr. into the neck of the femur. In all, 16 injections were given, of which 14 were made into the neck or trochanter of the femur. The usual amount injected was 2 dr., but on two occasions 4 dr. were given. A slight reflux occurred once, pain was always felt in the hip, and was thrice complained of in the knee. The temperature only once rose to about 102°, and usually was under 100°. The boy improved slowly in general health, the abscess in the hip ceased to refill, and he eventually left the hospital on a splint and crutches, the hip being quite firmly ankylosed.

Case XX.—Girl, aged 7 years. Hip disease, second stage; no abscess. Only three injections were given in this case. They were made into the trochanter and neck of femur, and were each 2 dr. Slight reflux of injected material and synovial fluid followed one. No pain and little reaction resulted.

* * *

The following points may be recorded: The greatest number of injections given any one case was 21. The greatest amount of iodoform given any one case was 198 grn. The greatest amount of iodoform given at one injection was 24 grn.

The highest temperature of reaction following an injection was 104° F. Usually the height of a reaction was attained in a few hours, but in some cases not for two days.

The usual interval between the injections was two weeks, but sometimes they would be suspended for two, three, or four months, to permit observation, and then be resumed.

In no case was there any iodoform-poisoning. In no case was there any suppuration sequent to the injections.

During the treatment 7 cases improved as if under protective treatment alone; 10 cases got worse, 5 having tuberculous abscesses develop, and 7 being submitted to operation, one of whom died; 3 cases were unchanged. One died of tuberculous meningitis.

I asked Dr. WALKER to abstract these cases in these two series because the mode of operation of the drugs must be different in each. In the peri-articular method the drugs are deposited in or close to the advancing line of infection, where bacillary life is most active and where the iodoform could exercise its supposed germicidal effects; and also, by its irritative action, aided in this latter by the more irritant property of the glycerin, stimulate the growth of the protective wall of fibrous tissue. But the absolute impossibility of knowing just where the limits of the infected tissue were, and the great probability that the iodoform-glycerin was often deposited in sound tissues, where it was simply a foreign body, led me to abandon this plan.

Intra-articular injections, reaching a point within the infected areas, gave a little more promise, theoretically, for the efficient action of the iodoform; but, again, it could affect only the particular articular structures—the synovial membrane, for instance—and left untouched the original foci in the bones, except in those cases where there had been ulceration of the articular cartilages opening the cancelli of the bone to the joint cavity.

In most of my excision cases I have found a diffuse tuberculosis of head, neck, and greater trochanter; and the softened bone, that the needle of my syringe always discovered, showed that this condition existed in these cases. It seemed an improvement, then, to adopt the intra-osseous method. The idea of flooding the cancelli with iodoform-glycerin is not quite practicable. Bone tissue, even if infected with tuberculosis, is not elastic, and but so much iodoform-glycerin may be injected, as blood or other fluids may be driven out. If the injection is made into a tuberculous focus very early in its history I cannot help feeling that, under the forced flow of the iodoform-glycerin, some of the tuberculous tissue, or products, or the bacilli themselves may be carried outside the original limits of the focus into the surrounding healthy areas, and, in view of the very feeble germicidal action of the drug, this would tend to the extension of the lesion. In cases where the lesion is a diffuse tuberculosis this danger is not so great, and as most cases that come to us have much more than a focus alone, the risk may be considered to be principally theoretical.

Once the iodoform-glycerin is in the infected area the question of its mode of action there arises. The inability of tissue infected with tuberculosis to itself inaugurate, or be stimulated to, any reparative action limits the drugs to germicidal effects only; but if these could be accomplished there should be left something that could, easily and in a little time, be disintegrated, absorbed, and replaced with sound cicatrix. I did not see any such happy results in my cases. In general, it seemed that the course of the disease was practically unchanged by the treatment, except in two cases, where the patients were made plainly worse. Of these cases that came to excision examination of the specimens did not show them to be in any way different from the specimens of cases that had had no injections, and almost always the iodoform itself had entirely disappeared, unless the operation followed closely on the injection. In those cases where operation was not necessary, the course of the disease, both as regards tissue-changes and the time treatment was necessary, and the final results did not vary markedly from cases treated by classical protective methods alone.

As regards the value of iodoform in the dressing of tuberculous wounds I am a little in doubt. I have long used iodoform dissolved in ether as an application to such wounds in the dressings during healing, and have packed them with iodoform gauze. At one time I dropped the use of it entirely and then

came back to it under the impression that my cases were not doing quite so well as before, but it is not uncommon to have tuberculosis take repossession of a wound, in spite of all the iodoform one can get into it. The drug has, of course, an exceedingly limited range of application outside of the treatment of tuberculosis, and even here I believe it is of comparatively little therapeutic value. Each of the cases here reported, with perhaps two exceptions had the potentiality of recovery if the drug could act as a definite germicide, and yet, as you have seen, the result was in most instances disappointing.

The search for an agent that will destroy the bacillus of tuberculosis in the tissues must go on, and, probably, it will some day succeed, but the past and the present can record only a series of failures—failures that are meritorious so far as the efforts they terminated were well planned, and well and persistently executed, but we who live in the time of trial and failure cannot help feeling that, while we must always hope and always try, still “hope deferred maketh the heart sick.”

San Francisco.

NOTES ON SOME OF THE NEWER METHODS OF TREATMENT OF NERVOUS AND MENTAL DISEASE *

By FREDERICK PETERSON, M.D.

Clinical Professor of Insanity, Woman's Medical College of the New York Infirmary; Chief of Clinic, Nervous Department, Vanderbilt Clinic, College of Physicians and Surgeons, New York; Visiting Neurologist to the City Hospital; Consulting Physician to the Manhattan State Hospitals for the Insane

(Continued from page 768)

Auto-Intoxication.—Researches in the physiological chemistry of digestion, as well as observations in many pathological conditions, have established that auto-intoxication from the absorption of poisonous substances generated in the alimentary canal by putrefactive and fermentative processes is not only a real thing, but a frequent factor in the etiology of a number of nervous disorders, such as headache, neurasthenia, hysteria, neuralgia, and even graver maladies, like epilepsy, melancholia, and mania. It behooves us, therefore, in these diseases to investigate carefully for evidence of any such cause. Periodical or constant attacks of gaseous diarrhœa are somewhat indicative of this condition. Frequently the condition of the bowels furnishes no information of the actual state of affairs. Recent researches† tend to show that an excess of ethereal sulphates in the urine (indican) is a good index of auto-intoxication in connection with other symptoms.

When auto-intoxication is suspected as the causative factor in any nervous disorder, it is essential to regulate the diet in the manner already mentioned, and there are at our disposition a number of intestinal antiseptics which, though not always efficient, are yet often of very great benefit. I have found in my own practice that beta-naphthol is one of the best intestinal antiseptics. I give it in capsules of

* Read before the Texas State Medical Association at Fort Worth, April 28, 1896.

† HERTER and SMITH, *New York Medical Journal*.

5 grn. each, two hours after eating, with water. In several cases of epilepsy and of melancholia it has acted exceedingly well. In several cases of epilepsy salicylate of soda has also proved itself to be of great value. Salol, too, is a good intestinal antiseptic. Sometimes I have made excellent use of peppermint for the same purpose. I think the abundant use of water a necessary adjunct in the treatment, usually advising the drinking of hot water several times daily on an empty stomach, and sometimes adding thereto frequent flushing of the large intestine with warm water.

Myxedema and Exophthalmic Goiter.—One of the remarkable advances of recent years has been in relation to the thyroid gland. I need not dwell too long upon a subject already made familiar by the published observations of many writers. Myxedema in the adult, and its corresponding condition in the young, infantile myxedema or cretinism, are nutritive disorders depending upon a diminished or absent secretion of thyroid juice. While not strictly nervous diseases, they have interested neurologists, because in the adult this condition leads to mental dullness and insanity, and in the growing infant and child to retardation of mental development and cretinous or myxedematous idiocy and imbecility. These conditions are no doubt rare in the West and infrequently met with, but in the great material that is congregated in a large city it is by no means rare or uncommon. I have observed the results of treatment in some seven cases of myxedema and in at least a dozen cases of cretinism, and the effects are truly marvelous as they have been described. I am about to publish the results of thyroid treatment in two or three cretins that have been under my observation as neurologist to the Randall's Island Hospital for Idiots.*

Now, exophthalmic goiter, or Graves's or Basedow's disease, as you may please to call it, is a malady in which the pathology has been, but is growing less, obscure. Until recently we were content to look upon it as a nervous disease. Nine years ago, in a careful study of this subject,† I wrote:

"In my opinion an anatomical lesion in the cardio-inhibitory nerve-path, or its medullary center, which diminishes but does not destroy its functional activity, is the cause of Basedow's disease."

But in view of the discovery of the function of the thyroid gland, which secretes a substance necessary to the proper regulation of metabolism, I am prepared to alter that opinion. There seems nowadays to be considerable justification for the theory that exophthalmic goiter is due to either an increased or a perverted secretion of thyroid juice, and probably the former. This seems to be borne out by the strong contrast existing between the symptoms of myxedema and Graves's disease, by the effects of overdosing in treatment with the thyroid extract, and by the frequently favorable results

of compressing the thyroid gland or exsecting portions of it in Graves's disease. On this new theory, and it is more than probable that this is the correct one, the principle of treatment in exophthalmic goiter is to diminish as far as possible the amount of thyroid secretion. The exsection of a part of the gland (thyroidectomy) is a surgical procedure which is certainly indicated in many cases, unless they have already gone too far. It has cured many cases of Graves's disease. Compression of the gland by bandages, or by a special apparatus which I have had made and which has acted well in some instances, has for its object the same idea. Ligature of one or more vessels supplying the gland may be tried, and I have the conviction that galvano-puncture will one day prove a very efficient means to the same end. It is possible that drugs which diminish secretion (like belladonna) may be useful in certain cases. Perhaps an agent may be discovered ere long which will neutralize the effects of the excess of thyroid secretion in the system, and this is a problem for the physiological chemists.

The remarkable effect of thyroid extract upon general nutrition naturally leads one to consider its possibly useful employment in some of the disorders which we are accustomed to regard as due to nutritional abnormalities in the nervous system, such, for instance, as epilepsy, paralysis agitans, and some forms of insanity. I have been treating for some time 10 selected cases of epilepsy and some cases of paralysis agitans with thyroid extract, but it is, as yet, too early to draw any inferences from the treatment.

Tetra-ethyl-ammonium.—There are some nervous and mental disorders, such as neuralgia, sciatica, paresthesia, neuritis, local paralyses, and occasional psychoses, which depend for their origin upon the rheumatic or gouty diathesis. Where such seems to be the causative factor, I prescribe tetra-ethyl-ammonium in addition to any other particular remedy indicated. I introduced this drug to the medical profession in an article upon it in the *New York Medical Journal* for September 16, 1893. Its extraordinary efficiency as a solvent for uric acid was discovered by EDISON, the inventor, at his laboratory shortly before, and given by him to me for investigation as to its medicinal virtues. It is given in doses of 10 to 20 drops of a 10-per-cent. solution three times daily, well diluted to begin with, gradually increasing the dose if necessary. An interesting point in connection with this drug is that it exists normally in the organism, and it is theoretically possible that a want of it may be responsible for many of the manifestations of both gout and rheumatism. At any rate treatment with it has been in my hands very gratifying in many instances, and it deserves more attention than has as yet been given it.

Cord-stretching in Locomotor Ataxia.—Suspension by means of the Sayre apparatus is a means of treatment in tabes that swept over this country several years ago, and which has fallen almost wholly into disuse, first, because it did not give all of the

* See "Results of Thyroid Treatment of Cretinism," by PETERSON and BAILEY, *Pediatrics*, May 1, 1896.

† "Morbus Basedowii," by FREDERICK PETERSON, M.D., *N. Y. Med Rec.*, Aug. 20, 1887.

results it seemed to promise, and, secondly, because of the trouble and even danger (syncope occasionally) involved in its employment. But doubtless the method had in it an element of usefulness, and the very slight stretching of the spinal cord incident thereto was in a few instances productive of good. Whatever of benefit was derived from suspension may be obtained by a much more simple and at the same time much more efficacious method of stretching the spinal cord, viz., the Bonuzzi method, which I recommend to every case of locomotor ataxia in my own practice, but which I believe is not familiar, if it be known at all, to neurologists or general practitioners in this country. The procedure is briefly thus: The patient lies upon his back on a sofa. The operator lifts up both of his legs and flexes the thighs as far as he possibly can, the patient keeping his knees perfectly extended. The toes approach toward the head, and in this way the back becomes very much arched, and experiments upon the cadaver have demonstrated an actual and considerable stretching of the spinal cord. At first the uncomfortable position is to be maintained for but a few seconds, but the daily or tri-weekly *séances* may be gradually prolonged to a few minutes or more. I have seen under this treatment some of the troublesome symptoms of tabes disappear, such as the ataxia, pains, and disorders of the sphincters.

Treatment of Alcoholism and Alcoholic Inebriety.*—The treatment of alcoholic conditions may be divided into three categories, in all of which nitrate of strychnia—originally introduced by a Russian physician for this purpose—given hypodermatically, I find to be the most efficient agent. These three categories are: acute alcoholism; chronic alcoholism, or alcoholic neurasthenia; and the alcohol habit.

ACUTE ALCOHOLISM.—1. Cut off all alcohol and confine to bed.

2. Blue-pill at night, followed by saline cathartic.
3. Hot wet pack for sleeplessness.
4. Hypodermatic injection of nitrate of strychnia, $\frac{1}{16}$ to $\frac{1}{32}$ grn.
5. Water, milk, kumyss, broths, soup, meat-juice, raw eggs, arrowroot, juicy fruits, and the like, when there is gastric disturbance.

This is the outline, in short, of a kind of treatment adapted to all cases of acute alcoholism, though bromide and chloral, or duboisine, are indicated in a certain number of instances.

ALCOHOLIC NEURASTHENIA.—1. Cut off alcohol.

2. Hot wet pack for insomnia.
3. Disturbances of the alimentary canal to be met by aperients and dyspeptic remedies (rhubarb and soda, hydrochloric acid, and the like). The diet should be milk, eggs, and vegetable foods; meats rarely.
4. Strychnia again the main agent to restore nerve tone; best given hypodermatically, but may be given by mouth in combination with quinine, or

in fluid extract of cinchona ($\frac{1}{16}$ grn. to 1 dr.), or in infusion of gentian.

As regards the alcohol habit or alcoholic inebriety, the Keeley cure, while it has made use of no drug not long ago tried by physicians all over the world, served at any rate to bring before the profession the great value of repeated suggestion in the treatment of this class of cases. Most of us have been accustomed to pay too little attention to these cases, and to dismiss them with a prescription and friendly counsel. I wish, therefore, to emphasize the particular advantage of having the inebriate patient come twice daily for a hypodermatic injection of strychnia. It is the continuous attention and suggestion of these daily visits which avail in the disorder; the strychnia, of course, acting as a prop to his nervous system deprived of its habitual stimulant. I would outline thus then the treatment of the alcohol habit.

THE ALCOHOL HABIT.—1. The hypodermatic injection of nitrate of strychnia in the doses already given, at least twice daily, more frequently if possible, and always by the physician himself. The moral influence and personality of the physician are of the greatest importance. By this frequent contact of physician and patient, the effort and attention of the inebriate are kept continually at their highest pitch.

2. A diet of milk, eggs, and vegetable foods should be enforced; meats being allowed but once daily.

3. Regular occupation, regular hours, and the avoidance of the society of fast companions must be insisted upon.

4. There is a certain class of patients to whom a substitute for a dram of liquor is at times imperative; when the desire comes on it must be satisfied. The substitute must be immediately at hand. With some of these, a combination of strychnia and fluid extract of cinchona ($\frac{1}{16}$ grn. to 1 dr.), taken with a glass of water, works very well. It is not always convenient, however, to carry a bottle in the pocket, so I am at times in the habit of prescribing powders composed of from 20 to 40 grn. of red cinchona bark, $\frac{1}{2}$ grn. of capsicum, and 3 grn. of powdered nux vomica, to be taken with a glass of water when required.

New Therapy in Epilepsy.*—Any remedy that offers any sort of success, even in a limited number of cases of epilepsy, is more than welcome. This is one of the most common of nervous disorders, two in a thousand of population being afflicted, and it is also one of the maladies with which the profession has been well acquainted clinically for two or three thousand years. It might almost be called the *aprobrium neurologicum*, from the fact that so little has been accomplished during this long period, either in regard to its pathology or its cure. We may say, however, that we have recently become more than ever convinced of its manifold pathology. We have come to look upon it more than ever as a symptom of a great variety of pathological conditions. More

*"The Treatment of Alcoholic Inebriety," by FREDERICK PETERSON, M.D., *Jour. Am. Med. Assn.*, April 15, 1893.

*"The Treatment of Epilepsy," by FREDERICK PETERSON, M.D., *AMERICAN MEDICO-SURGICAL BULLETIN*, February 1, 1895.

and more every year do we restrict the number of cases that may be called truly idiopathic epilepsy. We need to examine our cases with the greatest possible care, in order to exclude conditions which may require some particular treatment, such as trauma, tumor, old meningeal hemorrhage; reflex convulsions from genital, nasal, dental, ocular, or gastro-intestinal irritation, or from old cicatrices; epilepsy due to auto-toxemia and other toxic blood states. But as in most cases we will find, after the most searching investigation, no cause whatever for the attacks, we are constrained to treat such empirically, and it is to several new empirical methods of treatment that I wish to direct your attention. We will suppose that the bromides and borax and belladonna and the whole category of old remedies have been tried in vain. I will say that solanum carolinense, or horse-nettle, recently introduced, has had no effect whatever in my cases. On behalf of tincture of simulo, a South American plant of the hyssop family, I can say, from an experience of several years, that it is perfectly harmless, and that in several instances it has had remarkably good effect where other remedies have failed. The so-called opium-bromide treatment of FLECHSIG is of great use for many patients, particularly in old and obstinate cases where all other agents have been inefficacious. This treatment consists of the administration of opium for some six weeks, beginning with $\frac{1}{2}$ to 1 grn. three times daily, and gradually increasing until 10 to 15 grn. per day are taken. Then the opium is suddenly stopped, and bromides in large (30 grn. four times daily) and gradually reduced doses are given.

Another new combination with the bromides has been suggested by BECHTEREW, viz., that of adonis vernalis. As you know, adonis vernalis has much in common with digitalis, which has been used in past years in epilepsy, but the employment of the former in epilepsy and conjointly with the bromides is new, and in several of my cases the result has been more than usually gratifying.

I cannot forbear referring here for a moment, in closing, to the moral treatment of epilepsy, which is certainly new, and which has not received until lately any of the consideration which it merited. It is only too well known to all of us how epileptics have been dismissed with a prescription, and possibly some advice as to regulating the diet, rest, and exercise. But the special needs of this peculiarly unfortunate class of dependents had never been brought fully before the profession. No hospitals receive them. The schools cannot take them. No one wishes to employ them. They are ostracised from society, forbidden to take part in the recreations of their fellows, and shunned, more or less, by everybody. Untaught, idle, sick, neglected, they drift finally into the only shelter offered them—almshouses and insane-asylums. But a large majority of them, were it not for their attacks, could be educated in schools, could acquire trades, could enjoy recreations, and take a part in

the affairs of mankind. Thus it is that a scheme of colonizing them has been undertaken in several of the United States, following the example of Germany and France. I will only allude briefly to the plan already in operation in the State of New York, at Craig Colony.* The State has here a tract of nearly one thousand nine hundred acres of the best kind of agricultural land with already some thirty to forty buildings upon it. Here the epileptics of the State already upon public charge are being congregated (there are over one thousand to be cared for in this manner) and are to be given education in the usual branches of learning, taught every kind of industrial occupation, to be treated for their malady, and be afforded a home in a sort of village life where they will no longer feel their social isolation nor be debarred from the innumerable privileges enjoyed by the rest of humanity. This moral treatment of epilepsy is by far the greatest stride in advance taken for centuries in the therapeutics of one of the most distressing of nervous diseases.

New York; 60 West Fiftieth street.

A CASE OF SKIN-GRAFTING

By RUDOLPH MENDER, M.D.

City Physician

ON December 19, 1895, a lad of 16 years was brought into the police court with the following surgical condition: The soft structures of the forearm, from the elbow to the wrist, were in a state of deep ulceration and gangrenous patches, with very little, if any, sound integument intervening between. The ulcerating surfaces were bathed in and discharging sanious pus. On the anterior and inner side of the forearm the ulceration had reached nearly down to the ulnar artery. As city physician I was called upon to determine, if possible, what had caused this extensive injury of the soft structures, and found upon inquiry that it had resulted from some one pouring a solution of the commercial concentrated lye upon the arm.

From the police court the lad was sent to the City Hospital. The wound was first dressed with a salicylated-zinc ointment for two days. When this dressing was removed, the gangrenous patches came away. The underlying structures and the intervening ulcerating patches all presented a fairly healthy granulating surface.

At this point in the case it was decided to assist nature, in her attempt to repair the damage, by skin-grafting. Of the many methods that have been instituted for skin-grafting, that of my old teacher, Prof. CARL THIERSCH of Leipzig, was chosen, as it is unquestionably the most satisfactory when large areas are to be repaired. This method consists essentially in covering the wound more or less thickly with thin shavings of sound skin. In trans-

* Papers by the author: "The Bilefeld Epileptic Colony," *N. Y. Med. Rec.*, April 13, 1887; "Colonization of Epileptics," *Jour. of Nerv. and Ment. Dis.*, December, 1889; "Plan for an Epileptic Colony," *N. Y. Med. Jour.*, July 23, 1892; "Care of Epileptics," *Jour. Am. Med. Assn.*, September 30, 1893; "Craig Colony," *Pediatrics*, February 15, 1896.

planting these layers of skin, care should be taken so that the cut surface of the shaving of skin is brought in contact with the granulating surface of the wound. After a careful antiseptic preparation of the patient, and with the assistance of Dr. E. CLAVIN, fourteen very thin skin-grafts were removed in the usual manner with a keen-edged razor from the thigh of the patient, and applied directly to the ulcerating surfaces of the forearm. This was accomplished without narcosis, which was in accordance with the wishes of the patient.

All of the grafts took well. In performing this operation I discovered that the two best methods for transferring the grafts from their original position to the wounded surface was either to carry them directly from the razor to the ulcerating surface, or to place them first in a weak solution of sodium chloride, and then from this fluid to a smooth surface such as is offered by a sterilized glass spatula or scalpel, and from thence to the granulating surface of the wound. Either method will be found to prevent any curling of the long strips of skin which so frequently gives trouble to the operator. The grafts were kept in place by covering them with oiled silk thinly spread with carbolated vaselin and applying a light dressing of gauze bandages.

The case progressed favorably, and now, about one month after beginning treatment, there are only a few small ulcerating surfaces, and those are rapidly going on to complete cicatrization.

San Antonio, Tex.

APPENDICITIS: A REPORT OF 54 CONSECUTIVE OPERATIVE CASES; WHEN TO OPERATE; POINTS IN TECHNIQUE

By J. COPLIN STINSON, M.D.

DURING the past few years so much has been written on the subject of appendicitis that further discussion would seem superfluous. In the face of all this discussion one sees this physician treating his patients by medicines and local applications, that surgeon operating if unfavorable symptoms develop during the acute attack, another operating if there is no improvement inside 36 hours, and both these surgeons, should the patient survive the acute attack, will remove the appendix in an interval; another operating only when an abscess forms or perforation has taken place, and still another operating as soon as the diagnosis is made, no matter what the stage of the disease. Reviewing these different treatments the question arises, Which is the best method to adopt? We can only arrive at the very best conclusions on this matter by reviewing the statistics of as many cases as possible treated under these several methods, keeping in mind that the point to determine in the choice is, Which method gives the smallest percentage of mortality? Dr. ROBERT T. MORRIS, in his lectures on appendicitis, states that statistics of a large number of observers show the average death-rate in the principal attacks of appendicitis treated by medicines to be about 15 per cent., and that nearly 10

per cent. more die from the numerous chronic complications resulting from previous acute attacks. In Keen and White's "Surgery," the mortality is placed at about one in seven cases, and it is stated that in recurring cases the danger to life increases with each successive attack. Dr. J. A. WYETH¹ states that "the *Materia Medica* possesses no agent that can prevent infection of the peritoneum from a diseased appendix, or can cure the disease when once established."

Patients who are not operated upon unless unfavorable symptoms develop, or if there is no improvement inside 36 hours, are subject to considerable risk and danger, as we cannot say positively which case will recover from an attack or which will go on to suppuration, gangrene, or perforation. We can guess as to the condition of the appendix, and that is the best we can do. The symptoms of appendicitis do not indicate the condition of the appendix; a patient may have a gangrenous appendix, with pulse and temperature normal, because the toxins² are not entering the circulation. I have seen several patients with normal pulse and temperature complaining only of some pain in the right side, and on operating the appendices were found to be partially gangrenous or to contain one or more sloughs on the verge of perforation. Patients who are not operated upon before an abscess forms or perforation takes place are subject to the danger of local or general peritonitis, septicemia, and pyemia. Now, has any physician or surgeon the judgment to determine whether perforation or gangrene will occur, or whether the abscess, if one forms, will be localized or spread itself? Dr. WYETH³ maintains that "appendicitis is strictly a surgical disease; danger to life is from peritonitis, which may occur from perforation, but also without it, for septic organisms can pass through an unruptured appendix if its walls are ulcerating or gangrenous, and it is not within the scope of human judgment to determine from the symptoms whether or not perforation or gangrene is about to occur, whether peritonitis, with or without perforation, is being circumscribed by adhesions or is spreading to general infection."

If a patient has recovered from an acute attack and is operated upon in an interval, the infection is limited to the appendix buried more or less in adhesions; there is always some danger (in separating adhesions) of injury to adjacent structures; besides, if adhesions have been freely separated, drainage is necessitated, which may be followed by hernia. According to Dr. BULL's statistics the death-rate of operated interval cases is about 2 per cent. What is the mortality in cases operated upon as soon as the diagnosis is made? Statistics show that the operation has been performed so often by surgeons, with a mortality of 1 to 2 per cent., and in many instances without a death, that there is no ground

¹ WYETH, *N. Y. Med. Jour.*, June, 1894.

² ROBERT T. MORRIS: Clinical Lecture on "Appendicitis" at Post-graduate Medical School and Hospital, New York.

³ WYETH, *N. Y. Med. Jour.*, June 30, 1894.

for attacking the operation upon the score of fatality. Hernia is an infrequent sequence of abdominal section to-day. A record of one hundred consecutive operations⁴ for appendicitis, with a mortality of 2 per cent., and a post-operative hernia rate of zero, speaks for itself.

The question now arises, How shall we treat our cases of appendicitis? I should say, operate at the earliest possible moment as soon as the diagnosis is made, no matter what the stage of the disease. The results of MORRIS⁵, MURPHY⁶, DEEVER⁷, and RUSHMORE⁸, who teach that we should operate as soon as diagnosis is made, are most satisfactory. We may use palliative, plastic, and conservative methods in operating on tubes and ovaries, but we must be prompt, radical, and scientific in our operations for appendicitis.

In looking over my list of cases in which I performed or assisted in an operation for appendicitis while house surgeon at the New York Post-graduate Medical School and Hospital, and since I left that institution, I find they number 54. Of these, 36 were interval cases. In 17 the adhesions were separated and appendices removed through an inch-and-a-half incision. In most of these cases there were extensive adhesions, and the work of removal of appendices was done by the sense of touch. In all, convalescence was rapid. The patients were allowed out of bed on the eighth day, and resumed their occupations on the eleventh. Many of them felt so well two days after their operations that they wished to get up on the third day. In 19 cases an incision varying from one inch and three-quarters to four inches was made; the average length of incision in the 19 cases was about two and a half inches. In one of these cases a fistula formed, which had not closed at last report. In another, where a large iodoform-gauze packing was used, and through-and-through sutures of silkworm-gut used to partially close the wound, there was some stitch-irritation and slow healing of the wound, after the packing was removed, on account of the large cavity left to fill in by granulation. These patients were kept in bed between two and three weeks. Of the remaining 18, 11 were abscess cases; the appendices were removed in all except two; in these latter the abscesses were opened and, the appendices not being readily found, the adhesions were not broken down, the operators preferring simply to drain the abscesses and wait to remove the appendices later if they again caused trouble. In five cases the appendices were gangrenous; in two there was general suppurative peritonitis. In two acute cases the appendices contained deep sloughs. In four acute cases an inch-and-a-half incision was used to separate adhesions and remove gangrenous and sloughing appendices. In three cases the appendices were tubercular, while in one, on making an inch-and-a-half incision, the appendix and cecum

were found to be the seat of cancerous disease. In this case the appendix and cecum were excised and a lateral anastomosis made with fine chromicized catgut suture, the result being a satisfactory, immediate recovery. This patient is well, 14 months later. Where abscesses were present, in most cases the cavities were flushed out with peroxide of hydrogen and saline solutions. In those cases with widespread infection, in one the peritoneal cavity was flushed with peroxide of hydrogen and saline solutions; in the other with pitcherful after pitcherful, of hot water. Both of these cases recovered, although they were in critical condition for about two days after the operations. In nearly all cases the appendices were ligated close to cecum after snipping through its peritoneal and muscular coats, and the stumps buried, where possible, with Lembert sutures. Drainage was used in 16 cases. In 14 of these, Morris's capillary wick was employed. In one a narrow strip of iodoform gauze, in the other a large iodoform-gauze packing. In all the cases where the wick was used the results were most gratifying. The wick always did its work well and was removed from 24 to 36 hours after the operations. It never caused any peritoneal or other irritation, was easily removed, and after its removal such small openings were left that the layers of the abdominal wall fell accurately together and united about as well as if they had been sutured. I have notes of a number of abdominal sections in which drainage was necessitated, and large iodoform or other gauze packing used. Some of these patients died of septicemia or peritonitis; of those that recovered, their general conditions were poor for several days, the operations were followed by considerable pain, tympanites was very annoying, bowels difficult to move, showing interference with the intestinal movements. When the gauze packings were removed, there was always some pain due to the tearing of adhesions which had formed between the serosa and gauze, and occasionally after removal of gauze a collection of fluid escaped from the wounds, showing that drainage was imperfect.

In several cases fecal fistulæ formed, and in all there were large cavities left to granulate from the bottom, delaying cicatrization for some time. I think, in these cases, had the operators used one or more wicks surrounded by gutta-percha tissue, to prevent adhesions to peritoneum, instead of gauze packings, that the mortality would have been lessened, and of those who recovered the convalescence would have been more rapid, less painful, with fewer disagreeable symptoms, no hernia nor fecal fistulæ resulting, which sometimes follow the use of large gauze packing, glass or other stiff drainage-tubes.

Other Points in Technique.—Hernia developed in two cases. In one the wound had been freely drained after the operation; in the other the wound had been partially closed with through-and-through silkworm-gut sutures, and the remaining opening

⁴ ROBERT T. MORRIS, AM. MEDICO-SURGICAL BULLETIN, Feb. 22, 1896.

⁵ MORRIS, *Medical Record*, February, 1895.

⁶ MURPHY, *Medical News*, January, 1895.

⁷ DEEVER, *Medico-Surgical Journal*, March, 1894.

⁸ RUSHMORE, *Annals of Surgery*, May, 1894.

and area around stump of appendix packed with iodoform gauze. In the great majority of the cases I report, the structures of the abdominal wall were sutured accurately and separately with sterilized chromicized catgut.

Line of Incision.—In three cases a median incision was made; in the remaining the incisions were made over the normal site of the appendix and in a line which followed the trend of the fibers of the external oblique aponeurosis which was divided in the direction of its fibers, while the subjacent structures were divided in the same line with the aponeurosis. In all cases where an inch-and-a-half incision was used a guy line of catgut was inserted at the proximal angle of the wound through the divided edges of the internal oblique and transversalis muscles, fascia, and peritoneum; when it came to closing the wounds by making traction on the guy line, the retracted margins of the divided structures were quickly brought into view, and thus were easily sutured. I am sure that if each divided layer of aponeurosis, muscles, and fascia was sutured accurately and separately with sterilized chromicized tendon or chromicized catgut, there would never be a post-operative hernia. In the majority of the cases the appendix was amputated, and stump buried by Morris's method.

In the cases I report, where the stumps were completely buried by Lembert sutures the results were perfectly satisfactory, and I am sure that when the stump of the appendix has been completely buried by Lembert sutures no untoward symptoms will follow, although there remains a small cuff of mucous membrane projecting beyond the ligature around the stump. When the stump cannot be buried or has not been completely buried by Lembert sutures, there is danger of local or general peritoneal infection.

As a substitute for ligation of the stump, and especially to be used in the conditions where the stump cannot be buried, I would suggest the following methods of treatment:

After dividing in a circle the peritoneal and muscular coats of the appendix about one-quarter of an inch from the appendico-cecal junction, leaving the lymphoid and mucous coats uncut, dissect back to the cecum, with the handle of the scalpel, the divided serous and muscular coats of appendix. Next apply a narrow-bladed forceps transversely to the mucous cylinder close to cecum and temporarily close the opening at appendico-cecal junction, then cut off appendix close to forceps, leaving only a small cuff of mucous membrane projecting beyond the outer edge of forceps. Cleanse the cuff with a gauze pad wrung out of 1-1000 bichloride solution, then suture cut edges of mucous membrane and lymphoid coats very closely and accurately together with fine silk on a fine needle. Disinfect united edges and cover line of suture with aristol, remove forceps, and suture accurately the peritoneal and muscular coats which have been dissected back to cecum. One may now bury this line of sutures

with another layer of Lembert sutures. If the coats of the appendix are matted together, apply the narrow-bladed forceps transversely to all coats at the appendico-cecal junction. Next cut off appendix close to forceps, leaving only a small cut of the divided coats projecting beyond the outer edge of forceps. Disinfect protruding mucous membrane and suture cut edges closely together with fine silk on a fine needle, disinfect line of suture, cover with aristol, remove forceps, and bury this line of suture with one or more layers of Lembert sutures.

The methods above described can be done quickly. In both methods only sufficient mucous membrane and other coats of the appendix are used to close accurately the opening in the cecum at the appendico-cecal junction, without leaving any tension on the line of sutures, and after suturing is finished there remains simply a line of sutures on cecal wall at the former location occupied by the appendix. If the appendix is gangrenous, and the softening process has extended even to the cecum, have an assistant pinch up the adjacent portion of cecum with a dry piece of gauze to prevent fecal extravasation, then remove the appendix and irreparably softened cecum and infold cut edges of cecal wall, suturing the layers accurately together with fine sutures. This line of sutures is then buried with one or more layers of Lembert sutures.

Mortality.—Out of 54 operations there were 2 deaths, both abscess cases; 1 died of septicemia. In this case a long incision was used; the other died from nephritis, which was present before the operation, and which I am strongly inclined to think was primarily produced by septic material carried from the appendicular abscess. I am sure that in both these cases had the appendix been removed in the incipency of the inflammation I could in this paper have reported 54 consecutive operations without a death.

Conclusions.—From a study of the cases above cited and comparison of the methods used by various physicians and surgeons, I can only draw the following conclusions:

1. That appendicitis is strictly a surgical disease.
2. That an infected appendix should be removed as soon as the diagnosis is made.
3. That in many cases of appendicitis an inch-and-a-half incision is sufficient for operative treatment.
4. That if there is local or general infection the abscess cavities should be freely flushed out with hot saline solution.
5. That if drainage is necessitated, one or two capillary wicks should be used instead of iodoform or other gauze packing, glass or other stiff tubes.
6. That to prevent hernia the incision should be small. If drainage is necessitated, a small wick should be used, and the wound be closed, layer by layer, separately and accurately, with sterilized chromicized tendon or chromicized catgut suture.

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LET THE BOARD OF HEALTH CONTINUE TO DO ITS DUTY.—It is with great satisfaction that we note that the Board of Health of the city of New York has taken steps to eradicate two glaring evils. It has determined that the rear tenement-house shall go, and also that the numerous squatters who for long have disfigured even the chief residential portions of the city shall vacate unless they connect the shanties they occupy with the sewers. Both these mandates are in accord with what is expected of the Board of Health of the metropolis of this country, and the wonder is that under previous régimes similar steps were not taken. Is it possible that the millennium as regards this Board of Health has at last arrived, and that war of the most bitter type is going to be waged without fear or favor against all nuisances? This is that which the BULLETIN expects of the present board; and under the rules and regulations which govern it, and which grant it power of an ample type, we see no reason why its duty along the desired line should not be accomplished, even though it is reported that the owners of the rear-tenement property are going to fight the question into the last ditch. The profession and the community are back of the Board of Health in this matter, however, and will help as far

as feasible the abrogation of that which for long has been a menace to health. Go ahead, then, members of the Board of Health, and eliminate these and all other nuisances and menaces to the public health!

ANOTHER SORT OF ADVERTISING.—It is always interesting to observe the manifold ways that some members of our profession adopt in order to avoid not simply the code, but the whole system of medical ethics. The practice which has come to our mind is the much discussed "*medical advertising*."

How insidious are the practices of these medical foxes in the satiation of their ravenous consultation appetites! Often within the past few years it has come to our notice that the department of therapeutics in textbooks has appeared purposely misleading in order that the author might make it possible for him to obtain consultation "after all others had failed." Within the past few weeks we noticed the following excuse given by an evidently admiring reviewer of a well-known author's textbook on nervous diseases: "Optimism, if an error, is evidently on the right side." It would appear that the reviewer wished to lend strength to the author's well-known hopeful prognosis of nerve lesions when placed under "judicious medical treatment."

Such insult to our veracity, as a profession, will not prevail. It will only temporarily misdirect the foolish and ignorant, but cannot hope to blind the rank and file of the profession. We do deplore this and its kindred practices of attaching one's name to all sorts of remedies—not only because of the great injury liable to accrue to the profession, but because many of these men are of great merit and should not so suddenly grow vertiginous.

As a rule we do not care to point out these flagrant misrepresentations of our fellow-men, as we firmly believe that a speedy oblivious death awaits such transgressors; but we do wish to deter others from following in their footsteps and reaping the whirlwinds of medical disrepute. We all know well how inevitably any individual's single digression points to the final end and complete annihilation of his regard for medical ethics. We would not have the reader believe that this isolated instance here given is an exception and only used to prove a rule, but rather is a practice which is becoming very common, not only in text-books on special subjects, but also in almost every medical publication of the day. One writer advocates the use of a certain drug in phthisis or epilepsy, reporting many "cured" from evidence which is insuffi-

cient and premature. Another hurriedly contributes a miracle-working surgical appliance which can cure all sorts of deformities, thus avoiding the "use of the knife."

Without multiplying instances of this reprehensible transgression of medical conduct, we wish to say that we have more faith and confidence in the honor of the medical profession and its love of fair play than in any code, old or new, and that we are always willing to abide by its judgment and be governed by its honesty of purpose, which we know from the past is constant and invariable.

VALUABLE PATHOLOGICAL RESEARCH AT THE N. J. HOSPITAL FOR THE INSANE AT MORRIS PLAINS.—While the alienists of New York State congratulate each other upon the nomination and selection of Dr. IRA W. VAN GIESON as director of the pathological institute created by the passage of section 16 of the Insanity law of the State, codified this year, they must not overlook the excellent pathological research made at the N. J. State Hospital for the Insane at Morristown. Dr. T. P. PROUT, the second assistant physician and pathologist of this institution, publishes each year, in the annual report to the managers and officers, tabulated statements and valuable considerations regarding the cases which became the subjects of his post-mortems. In the report for 1895 he draws attention to the fact that 62.2 per cent. of the cases showed chronic kidney lesion, though only 6 out of the 24 cases were persons over 60 years of age, and one of these showed no gross lesion. Among all of his cases which came to autopsy during the past year, syphilis figured in but one, and alcohol in but one, the latter presenting no kidney lesion. Dr. HUBERT C. BRISTOWE, quoting from the figures of the Bath and Somerset Asylum, emphasizes the fact that there is a great frequency of kidney disease in cases of general paralysis of the insane. PROUT, in examining his records of autopsies made in similar cases in Morris Plains, finds that 100 per cent. of his general paretics that came to autopsy had chronic kidney lesions. This fact is significant as pointing to the probable toxic origin of general paralysis. Toxic substances, in order to reach the brain cell, must pass through and, in fact, be secreted by the cells of the smaller vessels. "This would account," PROUT thinks, "for the proliferation of nuclei in the perivascular lymph-spaces that occurs with such regularity in general paralysis. It is quite possible that the irritation caused by the toxic substances is sufficient to cause cellular proliferation. The kidney

lesion is probably a secondary condition following long-continued stimulation of the arterioles by the toxic substances and their consequent contraction with elevation of arterial tension. That kidney disease should follow is only a natural inference."

A LESSON TO FANATICS.—The city of Gloucester, England, has for long been the hotbed of anti-vaccinationists. Since the days of JENNER there has probably never been witnessed in England such an epidemic of small-pox as recently ravaged this city. Now that most of the fanatics who have for years persistently opposed vaccination against variola are dead, probably Gloucester will be spared such another epidemic. Even the leader of the anti-vaccinationists, who for some unexplained reason has been spared, has yielded his allegiance to scientific fact and been vaccinated; so that, should another epidemic prevail, perhaps he will be spared again, thus giving an object-lesson of value in favor of the protective power of the vaccine virus. It is very questionable if the time has not arrived when, by legal enactment, vaccination should be made compulsory the world over. It is certainly an established fact that ample protection against this deadly scourge of years gone by—small-pox—is yielded by vaccination, and he is the bold man who will endeavor to show that compulsory vaccination, in the light of such fact, is interfering with the liberty of the subject. While it may not be strictly proved, it is open to serious question if the city of Gloucester would have been thus ravaged by a plague had a law been enforced compelling all its citizens to be vaccinated. It is to be hoped that the lesson taught at the expense of human life, even though it be of the misguided type, will act as a deterrent in other localities where fanaticism proves superior to established scientific facts.

Along a similar line of reasoning, communities in which anti-vivisection fanatics thrive in abundance should take steps to eliminate them from power lest the day come when, through the lack of opportunity for resort to vivisection of a scientific type, it may prove impossible to draw deductions which may enable the physician of the future to save the life even of a fanatic.

"OLD SORES AND NEW REMEDIES."—The *Medical Fortnightly*, under this heading, comments as follows:

The *American Medico-Surgical Bulletin* and the _____ have each vented their pent-up antagonism against the American Medical Association, and now, like the small boy who has vomited

his too well filled stomach, they feel better. We are sorry to see these mighty warriors get stirred up, for it is too well known that their incompatibility with the American Medical Association cannot be overcome; so what is the use of opening up old sores? The American Medical Association is not infallible; in fact, we think that it has been too freely used by the astute medical politician, who gets the plum, and then makes the solemn protestation that he was strictly *regular* in getting it. Now, the association is sailing better, the winds are more propitious, and they have a man at the helm who justly rebuked "the money-changers" in his first official utterances, and, knowing the methods of the man, we can say that so long as he is president the politicians will have to keep under cover. The great octopus (the code question) will die a natural death, and the Golden Rule will yet bring harmony into the ranks, so that to be a member of the American Medical Association will bear with it more honor than it does to-day. It will require a few more men like SENN to do it, however, but it will be done.

To all this we say, Amen! If our very distinguished contemporary has read carefully the editorials in recent numbers of the BULLETIN he will note that we have simply claimed that the old-code question will inevitably die a natural death, and that the age of the Golden Rule will then have arrived so far as the medical profession is concerned. But will our distinguished contemporary insist on those who are in power in the American Medical Association obeying the tenets of the code they are living under instead of breaking them? Look at the *Duquesne Daily Telegraph* of May 30.

NEW YORK STATE COMMISSIONERS IN LUNACY.—Probably our age has seen no ring or class of politicians who have been more powerful than our much-talked-of State Lunacy Commission. Its arrogance is unbounded; its sway and power are absolute. Even legislatures and bosses claim its help, protection, or aid to overcome new obstacles. No one seems to know definitely where its great power lies or whence it comes—a triumvirate non-existent but yesterday and all-powerful to-day. The curbing of its lobbying power is an object worthy of Ciceronian eloquence. It was very sad but interesting to see the overwhelming subjection of the State Hospital Superintendents, who were given to understand that they were to devote more time to disciplining their medical staffs and less to the management of the hospitals, as that important duty would be kindly attended to at Albany in the Commission's palatial offices.

Again, when the united opinion of the medical profession in our State hospitals was found to be opposed to the establishment of a general pathological laboratory not only at New York, but even at

any central location in the State, one might have thought this would have deterred the Lunacy Commission from beginning such an undertaking, for a few years at least; but once more, as if to flaunt their power even more insolently than at the last-mentioned contest, the Commission straightway established the pathological institute at New York. But be it said to the honor of the Lunacy Commission that they placed in charge one of our ablest neuro-pathologists.

Up to the time of the opening session of this year's Legislature there were but few things which this omnipotent commission had not obtained. Indeed it can be said that in not a single instance has the Commission been balked in any project which it has undertaken. We thought that it would be impossible for the bill dismissing each hospital's board of managers to pass the Legislature, with such strong opposition as it must necessarily arouse; but we were mistaken; we were hardly prepared to see it pass both houses. But to see the Governor eagerly reach out his hand to sign the bill—What next? It is very necessary that we should scrutinize more closely this always successful commission. We need new lenses to discover such subtle power which is able to work such radical changes or reformative miracles. More light is wanted upon this commission and its *modus operandi*. In the mean time it behooves us to fold our hands and pray without ceasing for deliverance from this political nightmare, knowing full well that those "whom the gods would destroy they first make mad."

The Tetanus "Bug" and the Anti-tetanus "Juice."—Closely following the interviews in the lay press with "prominent" members of the profession in New York and Brooklyn comes the announcement through the same medium that the Board of Health is prepared to furnish anti-tetanus serum. Seeing that one of the gentlemen who expressed his views on tetanus to a reporter of a daily journal claimed that the earth of Long Island fairly swarmed with tetanus germs and that the unfortunate individual who rolled in it would need immediate inoculation, it is in line to suggest to mothers and fathers who propose taking their children to the neighboring resorts this summer that they should first request the Board of Health to have them inoculated, else we shall witness an epidemic of tetanus shortly which will throw the plagues of Egypt quickly into the shade! Seriously, is it not time that professional men should cease making comments in the lay press and that boards of health should rest satisfied with the giving of news, scientific and unscientific, only to the medical press, whence reporters of lay journals can select facts for their readers, and not sensational and alarming inconsistencies and absurdities. What does it profit the scientist if he obtain transient fame through the medium of lay journals?

GENERAL MEDICINE

Department Editors

WILLIAM CHARLES GUTH, M.D.

and

HENRY TURNER BROOKS, M.D.

Collaborators

ADOLPH ZEH, M.D., ADOLPH BARON, M.D., JOHN HOCH, M.D., WILLIAM VISSMAN, M.D., WILLIAM Y. FINCH, M.D., GEORGE W. BLANCHARD, M.D.

The Hepatic Manifestations of Cancer of the Pancreas.—A. COCHEZ (*Rev. d. Méd.*, 1895, No. 7; ref. in *Cent. f. inn. Med.*, 1896, No. 16, p. 394)

In the clinical picture of carcinoma of the head of the pancreas, compression of the bile passages, with its reaction upon the liver, is an important point upon which the diagnosis often rests. In the discussion of the clinical histories of two cases, the author states that in addition to the chronic progressive icterus, absence of enlargement of the liver, and dilatation of the gall-bladder are not always characteristic of the above affection. In mechanical biliary cirrhosis of the liver, this organ is enlarged in the early stage and subsequently undergoes atrophy. Hence the size of the liver found at the autopsy chiefly corresponds to the period of its participation in the disease. On the other hand, as regards the condition of the gall-bladder, the occurrence of atrophy or dilatation depends upon the location of the obstruction. For the development of the symptom complex its condition is by no means a matter of indifference; for if the choledochus is compromised, it, like a reservoir, diminishes the great load upon the liver and permits the cirrhosis to develop to the atrophic stage. If, however, the gall-bladder throws itself directly upon the liver, the latter becomes intensely altered and death occurs with icterus gravis before the first hypertrophic stage is ended.

The Initial Rates of Osmosis of Certain Substances in Water and in Fluids Containing Albumin.—W. S. LAZARUS-BARLQW (*Jour. of Physiol.*, 1895, XIX, Nos. 1 and 2, pp. 140-165)

The chief conclusions to be drawn from this investigation are as follows:

1. The ratio between the initial rates of osmosis of glucose, sodium chloride, and urea in equimolecular solutions is not the same as the ratio between their final osmotic pressures or the ratio between the differences of their freezing-points and that of water. The practical bearing of this conclusion is that it is impossible to state from a determination of their freezing-points that one solution is hypertonic, isotonic, or hypotonic as regards another solution of a different composition at pressures within the limits possible in the animal body. This can only be determined so far as is at present known by actual experiment in each individual case.

2. The ratio between the initial rates of osmosis of glucose, sodium chloride, and urea in equimolecular solutions, when the membrane is copper ferrocyanide, is not the same as it is when the membrane is prepared peritoneal membrane. It follows that general deductions as to osmosis true in the case of one membrane are not necessarily true in the case of another membrane. The importance of the membrane in determining osmosis has already been insisted on by GRAHAM and LOTHAR MEYER, but has not as yet received sufficient attention.

3. In the case of prepared peritoneal membrane, the initial rate of osmosis, of glucose, of sodium chloride, and of urea is diminished by the presence of albumin in the solution even if that albumin be only present in very small quantities.

4. In the case of prepared peritoneal membrane, in watery, in faintly albuminous, and in highly albuminous equimolecular solutions, the initial rate of osmosis of glucose is greater than that of sodium chloride, and the initial rate of osmosis of sodium chloride greater than that of urea.

On Mechanical Support of the Lung in Phthisis.—STUART TIDEY (*Brit. Med. Jour.*, No. 1838)

The author's method is to apply the anterior end of the strapping over the lower portion of the sternum, and direct patient to breathe out while he draws the strapping round the lower part of the thorax and fixes it over the vertebral column—either strips of strapping or a suitably sized (14 x 5 in.) piece of chamois leather spread with plaster. The appliance should be kept on till all signs of disease have disappeared and healing is complete. The patient is directed to take a moderate amount of regular exercise and to practice deep breathing; this exercise and deep breathing tend to bring into play all portions of lung not habitually active, while the strapping directs healthy lung to encroach on the diseased region.

The advantages of strapping are as follows:

1. In early phthisis (catarrhal stage) to give comparative rest and relaxation to affected lung tissue.
2. In the stage of consolidation, to secure the same results, thereby limiting the risk of extension and to promote elimination of the disease products by improving the circulation in and about the diseased area, and to facilitate expectoration.
3. In the stage of cavitation, to promote closing of cavities by directing healthy lung to encroach on the diseased area instead of relying on natural processes of cicatrization.
4. Diminished tendency to hemorrhage by reduced tension on vessels and cicatricial traction on vessel-walls.
5. The ultimate object is to obtain a smaller thoracic cavity filled with healthy lung instead of an enlarged thoracic cavity partly filled with diseased lung.

The Relationship of the Liver to Fats.—D. N. PATON (*Jour. of Phys.*, XIX, No. 3, pp. 167-216)

Throughout the various parts of the liver there is a uniform distribution of the substances soluble in ether—the so-called “fats.” In animals in the same condition the percentage amount of substances soluble in ether is fairly uniform. The ether extract varies greatly in amount, but is on an average about 5 per cent. of the liver substance. After extraction with ether a certain amount of fatty acids remains partly in combination with bases as soaps, partly in other chemical combinations, possibly of the nature of nucleins or of lecithin albumins which may be decomposed by hydrochloric acid. The ether extract of the liver contains from 40 to 90 per cent. of fatty acids. The fatty acids constitute roughly about 3 per cent. of the liver. The fats of the liver are distinguished by containing a much smaller proportion of oleic acid than the other fats of the body. Lecithin is a constant constituent of the ether extract of the liver, and its amount is fairly constant, averaging 2.35 per cent. of

the liver substance or 10.1 per cent. of the solids of the liver. It holds nearly one-half of the fatty acids in combination. The amount of lecithin varies inversely with the amount of fatty acids.

It is impossible by titrating the ether extract by HOFMANN'S method to determine the amount of free fatty acids. When the lecithin is large in amount the acidity is great; when small the acidity more nearly approximates to that of the body fats. The amount of cholesterin is smaller than is usually stated, averaging about 0.039 per cent. of the liver substance in the rabbit and 0.029 per cent. in the cat. The amount of substances other than fats, lecithin, and cholesterin in the ether extract of the liver varies from 4.2 to 22 per cent. of the extract, being on an average 12.1 per cent. The proportion is lowest when the amount of fatty acids is highest. Pigments constitute only a small part of this. Sulphur may or may not be present in the ether extract of the liver. Its presence is probably due to the extraction of jecorin. Its absence does not indicate the absence of jecorin, but is probably due to the decomposition of this substance in the process of drying. The fatty acid constituent of the jecorin will in any case be extracted.

Fats may be transported to and accumulated in the liver. Fats may also be produced *in* the liver. They do not undergo the same simple transformation in the liver as glycogen does. Fats accumulated in the liver disappear either by being carried from the organ or by being metabolized in the organ. Some of the fatty acids are linked with phosphorus and cholin to form lecithin, and this lecithin is a forerunner of the nucleo-compounds of the body.

The liver thus seems to have the function of utilizing and economizing the phosphorus of the body by combining it with fatty acids as a stage in its reconversion to nuclein compounds. In the case of the usual storage of fat in the liver there is no diminution in the amount after a fast of 56 hours in cats and 96 hours in pigeons. When an excessive amount of fat has been stored in the liver of cats it is got rid of to a large extent in 68 hours. The liver maintains a store of fatty acids during inanition. An excess of fat taken in the food is largely stored in the livers of certain animals, *e.g.*, cat and rabbit. The amount of fat in the liver is not proportionate to the amount of glycogen present. A diet rich in carbohydrates tends to increase the amount of fat in the liver. As hepatic glycogen disappears there is an actual increase in the amount of fatty acids in the liver. These acids have the characteristic high melting-point of the acids of the liver. During the period of the accumulation of fatty acids the blood-serum remains perfectly clear. The evidence thus points to the formation of the fatty acids from the glycogen. The addition of an excess of proteid to the food does not lead to an accumulation of fat in the liver.

The Relation of Gastric Acidity to Acidity of the Urine.—ALBERT MATHIEU and CH. TREHEUX (*Arch. de Méd.* 1895, p. 526)

Researches made by the authors upon the connection between gastric acidity and urinary acidity in the course of normal digestion and that of dyspeptics lead them to the following conclusion:

1. There is a connection between the acidity of the gastric juice and the acidity of the urine.
2. The more acid there is produced in the stomach, whether by secretion or by alimentary

fermentation, especially gastric fermentation, the greater the proportion and the quantities of acid eliminated by the urine during the period of digestion.

3. In the normal state the acidity of the urine is notably lowered during the three to five hours following the ingestion of food. After that it rises. The lowering of the acidity may be preceded by a slight increase during the first hour, as if a certain quantity of acid were immediately hurried away by the wave of ingested liquid and rapidly eliminated.

4. In most cases there is an almost absolute parallelism between the curves representing the relative acidity and the absolute quantity of acid excreted. This parallelism is, however, destroyed when there is a certain degree of polyuria following a meal. The curve of relative acidity then rises while that of absolute acidity is lowered.

5. When a considerable quantity of the acid of secretion is removed from the stomach, either by vomiting, or by lavage, there is produced a marked lowering of the acidity of the urine, which may, under these conditions, even become alkaline.

6. The mean quantity of acid eliminated per hour is higher in *hyperchlorhydric*s than in *hypochlorhydric*s.

7. The ingestion of milk causes a notable increase in the quantity of acid excreted in the urine. This is doubtless due to the fact that milk rapidly produces a large quantity of lactic acid in the stomach and that this acid is swept to the kidneys by the increased diuresis, produced by the ingestion of liquid.

8. Milk should be excluded from the test-meals used in researches upon this subject. The meals should be the same for all patients.

9. The patients under observation should be submitted to a regimen for a sufficiently long time. The ingestion of beer, for example, in the evening, will notably increase the acidity of the urine during the following day.

Uremic Aphasia.—RENDU (*Gaz. heb. de Méd. et de Chir.*, 1896, No. 27, p. 319)

The author has recently observed a case showing that uremic intoxication, which has been usually regarded as generalized, may under certain circumstances localize itself and exercise its action upon a single organ.

A man, 56 years old, was smitten with an apoplectiform attack. After the disappearance of the coma he had aphasia, accompanied by a right bronchial monoplegia. The urine contained traces of albumin, but since there existed at the same time a slight degree of aortic atheroma, the diagnosis was made of embolism coming from the left heart.

A fortnight later, without known cause, the patient was taken with intense dyspnea with oliguria, the urine being strongly albuminous. Auscultation of the lungs revealed absolutely nothing. It looked, therefore, like a toxic dyspnea of the uremic order.

A blood-letting of 200 gme. led to a diminution of the attacks of dyspnea, which soon disappeared entirely under the influence of repeated injections of artificial serum and the ingestion of lactose.

RENDU thinks that the monoplegia and aphasia attributed to embolism were equally uremic manifestations. In the rest, this aphasia got better at the same time that diuresis was established and albumin diminished, and disappeared completely when the renal functions had fully established themselves.

MATERIA MEDICA

Department Editor
WILLIAM FANKHAUSER, M.D.

Treatment of Sick-Headache.—M. CRITZMAN (*Presse méd.*, 1896, April 15)

According to the author, the most rational treatment of this frequent complaint is the following:

1. The hyperesthesia of the painful region must be diminished by aspersion with seltzer water.

2. Immediately afterward energetic pressure must be made upon the temples, on both sides of the head. In order to compress the blood-vessels, their exact site should be determined. A cork is then cut into round pieces, which are applied to the arteries, and a moist gauze bandage is passed around the head several times.

3. A capsule containing the following should be given every two hours:

Sparteine Sulphate 0.02 gme. ($\frac{1}{2}$ grn.)
Caffeine 0.1 gme. ($\frac{1}{2}$ grn.)
Antipyrine 0.5 gme. ($\frac{7}{8}$ grn.)

Four such capsules should be given, even though the pain may have completely disappeared.

4. If there is gastric intolerance, which frequently is the case, the above mixture should be given as an enema.

This treatment is said to cut short the attack and to relieve both the pain and the nausea.

Soziodole in Nasal and Naso-pharyngeal Affections.—STETTER (*Arbeit. a. d. Ambulat. u. d. Privatklin. f. Ohren-, Nasen-, u. Halsleiden*, No. II, p. 14)

The author reports that he has obtained excellent results from the use of soziodole-zinc and soziodole-potassium in the treatment of nasal and naso-pharyngeal affections.

In *rhinitis hypertrophica* he has found soziodole-zinc with talcum (10 per cent.) to effect a complete cure in almost every case. After a comparatively short time the congested and swollen mucous membrane was much reduced and assumed a healthy color.

Against *acute coryza* in the height of secretion, Dr. S. insufflates soziodole-potassium, with talcum (1:10), into the nose every hour or two. A few applications even suffice to check the excessive secretion, it is stated.

In *ozena* the author found soziodole to have a very beneficial influence upon the fetor. In the treatment of chronic retro-nasal and pharyngeal catarrhs, and after cauterization in granular pharyngitis, the author has used a 2-per-cent. spray of soziodole-zinc with very good results.

Also in the common *chronic naso-pharyngeal catarrhs*, which are characterized either by swelling and redness of the mucous membrane and increased secretion, by more or less severe cough, or by follicular abscesses, Dr. S. uses several times daily a 2-per-cent. solution of soziodide-zinc, applied to the naso-pharyngeal cavity by means of an atomizer. If follicular abscesses exist, he incises them before applying the soziodole.

In 85 cases of acute and chronic *laryngitis* the author has employed with success 1- to 2-per-cent. solutions and a 10-per-cent. powder of soziodole-zinc (with talcum). The astringent action of the remedy was quickly manifested by the mucous membrane becoming paler, and, where hoarseness had existed, by the voice again becoming normal. A

case of tuberculous ulceration of the larynx is mentioned, in which the patient suffered from complete aphonia, and occasionally, also, from severe dyspnea. After but a few applications of the 10-per-cent. soziodole-zinc powder, the ulcers markedly diminished in size and the general health greatly improved. At the date of this report the patient had been under treatment for one and one-quarter years. He was still slightly hoarse on account of a defect of the left vocal cord, but he had no more choking spells, attended to his business regularly, and, during that time, had twice been without treatment for two months.

As regards the use of soziodole-mercury in *sypilitic affections* of the throat, Dr. S. reports on two cases. Both patients had previously (four and six months respectively) undergone an inunction treatment, and had taken large quantities of potassium iodide; but they still had ulcerations on the hard and soft palates, and one of them had a small ulcer which reached to the mucous membrane of the right arytenoid cartilage. The treatment Dr. S. employed consisted solely of the local application of soziodole-mercury, and, after three and three and a half weeks, respectively, the ulcers had completely cicatrized.

Ichthyol in Periurethral Abscesses and Blennorrhagic Prostatitis.—S. EHLMANN (*Wien. med. Presse*, XXXVI, Nos. 48 and 49)

In treating periurethral abscesses Dr. E. resorts partly to a causal and partly to a symptomatic treatment. It is the aim of the latter to remove the painful phenomena which are produced especially during erection and micturition. For this purpose the author administers large doses of sodium bromide to reduce the erections, and an infusion of *herniaria glabra* and wormseed (taken warm) to dilute the urine. The cause of the trouble, he thinks, is best conquered by the application of a good anti-gonorrhoeic that shall penetrate into the tissues and cause absorption of the infiltrations. Of all remedies that have been recommended for this purpose, Dr. E. prefers ichthyol.

As long as the infiltrations are about the urethra and have not extended to the skin, he employs ichthyol in the form of bougies. These he prepares from cacao-butter to which 0.02 gme. ($\frac{1}{2}$ grn.) of the remedy is added for each bougie. Weak urethral irrigations may also be used to advantage if the inflammation of the remaining mucous membrane is not intense.

If the infiltration has reached up to the skin, then the author makes endermic applications of ichthyol, aided by heat, to cause absorption of the infiltration; or, if this be not possible, to hasten suppuration and cause perforation to take place before the infiltration has extended very far.

He applies the remedy either as a paint consisting of a mixture of equal parts of ichthyol, glycerin, and water, and bandaging with a thin layer of absorbent cotton and gutta-percha paper, or with mull-bandage; or, as an ointment made with lanolin and simple ointment, covered in the same manner.

When suppurative disintegration has occurred, the author also employs ichthyol as a dressing. He prefers this remedy to iodoform partly for the reason that its odor may be covered by the addition of $2\frac{1}{2}$ per cent. each of oil of eucalyptus and oil of citronella, and, principally, for the reason that while iodoform favors the formation of granulations, it does not induce absorption of the infiltration, whereas ichthyol does both.

In one case in which a small cavity had formed in an extensive infiltration Dr. E. withdrew the pus by means of a Pravaz syringe, injected a few drops of a 5-per-cent. solution of ichthyol, and then applied a dressing, whereupon recovery took place without further treatment.

In many cases of blennorrhagic prostatitis Dr. E. has obtained good results from the use of ichthyol rectal suppositories. He prefers ichthyol to iodine and to extract of ergot, which are used in the same manner.

While it has been stated that ichthyol acts as a bactericide to gonococci only when the latter lie on the surface of the urethra and that those situated in the underlying tissues are not thus affected, the author is strongly of the opinion that, in the case of the mucous membrane of the rectum, ichthyol is absorbed by it, and thus acts directly upon the prostate gland situated beneath it. Ichthyol is, in this respect, similar to iodine, but the former possesses the advantage over the latter of being free from toxic effects.

Glutol.—C. L. SCHLEICH (*Med. Week*, 1896, IV, p. 132)

Among the new remedies recently introduced is formaldehyd-gelatin, brief mention of which was made on page 293 of the current volume of the BULLETIN. The name has since been changed to "*glutol*," and practical details concerning same are now to hand.

Glutol is obtained by drying a solution of gelatin in the presence of formol vapors, and differs entirely from ordinary gelatin, having a glassy consistency and transparency, being insoluble in water and in alkaline or acid liquids, and resisting the action of both dry and moist heat.

In itself it possesses no bactericidal properties; but Dr. S. has found that, when in contact with organic tissues, glutol is decomposed by the vital activity of the cells. This decomposition is gradual, and continues as long as any glutol remains in contact with the tissues or wound, with the uninterrupted elimination of formaldehyd vapors. In their nascent state these vapors possess powerful antiseptic properties, and are capable of promptly arresting all suppuration and insuring complete asepsis of the wounds, without the necessity of resorting to any other dressing.

Glutol is best prepared by mixing 500 gme. of gelatin, dissolved in water, with 25 drops of 40-per-cent. formaldehyd, drying the substance so obtained in the presence of formaldehyd vapors, and then powdering it. The powder should always be kept in a dry state, with a drop of formaldehyd (40 per cent.).

The powdered glutol, when applied to a recent simple wound, is converted in a few hours into a solid adherent crust, under the protection of which the wound rapidly heals by first intention.

The discharge of purulent wounds is arrested usually within 24 hours, a few drops of clear serous fluid only being secreted, instead of pus.

These conclusions are based on observations in 120 cases of acute suppuration, 93 cases of simple aseptic wounds, 4 cases of compound fractures, and 2 cases of deep scalp wounds, every patient recovering without the slightest febrile reaction.

The liberation of formaldehyd from glutol is hastened, according to Dr. S., by the application to the wound of a few drops of the following mixture:

Pepsin	5.0 gme.
Hydrochloric Acid.	0.3 gme.
Distilled Water	100.0 gme.

For external use.

SURGERY

OPHTHALMOLOGY, OTOTOLOGY, RHINOLOGY,
LARYNGOLOGY, DERMATOLOGY, ORTHO-
PEDIC AND GENITO-URINARY SURGERY

Department Editor
SAMUEL LLOYD, M.D.

GENERAL

In charge of B. FARQUHAR CURTIS, M.D., WILLIAM B. COLEY, M.D., E. M. FOOTE, M.D.

The Treatment of Septicemia.—KARCZEWSKY
(*Centrbl. f. Chir.*, No. 1, 1896)

The author reports a case of severe puerperal mastitis, which gave rise to a general infection with very high temperature. This occurred in spite of numerous incisions and free drainage. Staphylococci in large numbers were found in the blood. As the patient seemed to be lost without heroic interference the breast was amputated to eliminate the source of infection. Although relative improvement followed the operation, the temperature continued, and examination of the blood revealed staphylococci. As a last resort a Pravaz syringe of sterilized turpentine oil was injected into the external surface of the right thigh. In seven days the temperature came down to normal. At the seat of the injection an abscess developed, which was incised. Examination of the thick, odorless pus revealed no micro-organisms. Complete cure was the final result.

"Epithelial Sowing:" A New Method of Skin-grafting (*La Semaine méd.*, XV, 1895, p. 520)

F. VON MANGOLDT (of Dresden) has conceived a method of skin-grafting to which he has given the name of "epithelial sowing," which, for ease of execution and certain other advantages, merits careful consideration.

The epithelial elements are obtained by simply scraping a healthy cutaneous surface.

For this purpose he prefers the external or internal surface of the arm. The chosen spot is carefully shaved and disinfected and then, with a sharp sterilized razor, held perpendicularly to the skin, the epidermis is scraped away until the papillary layer is reached. In this way a magma is obtained, composed of epithelial cells and extravasated blood, which is spread upon the surface to be treated and thoroughly pressed in with a spatula. This sowing is very simple in case of a fresh wound, provided the blood has ceased oozing; but in case of an old or infected wound it is necessary to remove the granulations and thoroughly disinfect it.

In order to make sure that the epithelial elements adhere closely to the wound, it is advised to scarify it with a small and very sharp bistoury before spreading the scrapings upon it. The spot from which the epithelium has been borrowed is dusted with dermatol, covered with sterilized gauze, and bandaged.

The grafted area is covered with strips of protective, over which an aseptic dressing is placed. The region from which the epidermis has been removed resumes its normal appearance in a few days.

The transplanted area, during the days immediately following the operation, looks as if covered with a pseudo-membrane; it loses its primitive brick-red color and becomes yellowish gray, a change due to the coagulation of the fibrin. At the fifth to seventh day the fibrin begins to disappear, and the color

changes to bluish rose, the first sign of the proliferation of the epidermic elements. Toward the middle or the end of the third week the surface is completely covered with epithelium.

After the fifth day the dressing is changed every two days, and the wound gently irrigated with a sterile, warm, normal salt-solution. After the tenth day boric acid is dusted on. The new epithelial layer is at first thin and glossy, later it thickens and begins to desquamate. This desquamation, probably due to the absence of the glands normally present in the skin, should be combated with ointments of fat or oil.

Not the least of the advantages of this method is the fact that no pockets of necrotic tissue are closed in by the new skin, as sometimes happens in grafting by the Thiersch method.

The Treatment of Floating Spleen by Splenopexy.—W. SYKOFF (*Arch. für klin. Chir.*, LII, No. 3)

At the suggestion of Prof. LEWSCHIN, the author undertook some experiments on animals. He inclosed the spleen in a network of sterilized catgut and attached this with sutures to the abdominal wall.

On the strength of these cases, the following conclusions may be drawn:

1. With the aid of catgut sutures it is possible to fix the spleen firmly to the abdominal wall.
2. For this fixation it is sufficient to suture half or the middle third of the spleen.
3. The spleen will diminish somewhat by the contraction of the newly formed bands of tissue.
4. The fixed spleen will perform its function.
5. In fixation of the spleen the catgut plays the most important rôle, holding it in place until bands of tissue develop.
6. All irritation of the surface of the spleen for the purpose of getting firmer adhesion is unnecessary.
7. Extirpation of the spleen is only permissible if the other blood-generating organs are in normal condition.
8. In local diseases of the spleen resection is to be performed instead of splenectomy.
9. Splenectomy is indicated if it is a primary affection which may spread in the system; also if it is suspected that the spleen will not perform its function, no matter how small the lesion may be.
10. Floating spleen must and can be fixed.
11. In case of a prolapsed spleen, we must try to replace it and fix it.

Radical Cure of Hernia in Children.—BROCA (*Rev. des Mal. de l'Enf.*, 1895, No. 13, p. 426)

BROCA has had the largest and most successful experience in the operative treatment of hernia in children of any surgeon in the world. Since 1890 he has operated upon 500 cases of hernia, of which 477 were children under 15 years of age, with but 1 death.

Sixteen of the cases were umbilical, with no deaths, and one recurrence. The recurrence was due to suppuration and extrusion of the silk suture. The operation employed in umbilical hernia was omphalectomy, with suture of the wall in three layers.

Forty-four cases were inguinal in girls, and 417 inguinal in boys. The results of operation were almost perfect. There was but one death due to operation, and this was caused by septic peritonitis. Strictly speaking, another death should be included

in the mortality. This was due to broncho-pneumonia, and occurred in a child 13 months old, 48 hours after operation. In fifty-eight cases BROCA extirpated cysts of the cord (hydrocele of the cord), and in all cases he found a small communication with the peritoneal cavity. This fact shows it is not wise to treat such cases by injection.

At first BROCA adopted three or four years as the age-limit in advising operation. He now considers a child aged fifteen to eighteen months sufficiently old. He operated upon one infant aged 19 days with strangulated hernia, and although there was commencing gangrene the child made a good recovery.

Of 250 cases traced beyond six months there were but 2 relapses.

The method employed was: (1) Incision over the canal; (2) slitting up the aponeurosis; (3) high ligation of the sac; (4) careful closure of the canal with silk suture going through all the layers without transplanting cord. He does not think Bassini's method is necessary, at least in children.

GENITO-URINARY

In charge of GEORGE KNOWLES SWINBURNE, M.D.

Prostatectomy.—E. NIENHAUS (*Beitr. z. klin. Chir.*, XIV, No. 2, p. 418)

The operation can best be done in the Trendelenburg position with a fairly filled bladder. First, suprapubic cystotomy is performed, making the opening large enough to admit the finger. Then MCGILL recommends incision of the mucous membrane covering the tumor. Enucleate with the finger as much of the hypertrophied tissue as possible. In case the tumor is hard, the scissors, spoon, or thermo-galvano-cautery can be used. Hemorrhage can be checked by washing out the bladder with hot solutions. The after-treatment is by drainage through the suprapubic fistula. This operation permits inspection as well as digital examination, and one can thus judge of the size and position of the mass.

It has the disadvantages that the prostatic urethra is not easily reached, extensive incisions and enucleations are often difficult and attended by profuse hemorrhage. Open wound surfaces are left in the bladder, which may give rise to severe infection. Often long persisting fistulas are left.

This method is indicated if we have to deal with a well-developed middle lobe, which obstructs the internal opening of the urethra; or with a lateral lobe, which extends well into the bladder. These, however, are rare cases. If, however, the principal cause of difficult urination is hypertrophy of the lateral lobe, this method will yield no result. It will also be difficult in small, contracted bladders.

By way of the perineum we can reach the prostate either by opening the urethra or without exposing the urethra from behind.

In the first the raphe is incised and the membranous portion of the urethra is opened, the opening being large enough to admit the tip of the index finger. The finger reaches the bladder, the prostate is incised in the middle, and the protruding parts removed. After-treatment consists of drainage by a double rubber cannula. This operation is known as Harrison's; it can be employed in debilitated patients. It furnishes efficient drainage and the patient is confined to his bed only for a short time; but it only palliates—it gives no view of the bladder. In cases where the middle or lateral lobes extend into the bladder it is not indicated.

All intra-vesical operations have the great advantage that they improve the cystitis which is present with hypertrophied prostate. We find that the results of the operations are due to the improvement of the bladder condition.

VON DITTEL has done lateral prostatectomy twice. He claims that the lateral lobes cause the obstruction. He proposed the following operation:

The patient lies on his back or his right side with the thighs drawn up. A catheter is introduced into the urethra and a water tampon into the rectum. The skin incision is made in the median line from the point of the coccyx up to the posterior commissure of the rectum, then to the right side in a curved direction, encircling the rectum, up to the raphe of the perineum. After opening of the ischio-rectal space the rectum is separated from the prostate and its posterior surface exposed to view so that pieces can be removed. The wound is then treated by the open method. This operation is only indicated if the function of the bladder is intact.

The author collected 11 cases of lateral prostatectomy. Five patients were operated upon by SOCIN, three by SCHEDE, and three were operated upon and published by KÜSTER.

SOCIN modified v. DITTEL's operation. The patient is placed in the lithotomy position on Trendelenburg table. Thighs flexed and slightly abducted. A metal bougie in the urethra is held by an assistant, and an iodoform gauze tampon is placed in the rectum. The skin incision begins over the right tuberosity of the ischium, and is carried forward in an arch; it crosses the middle line exactly at the lower margin of the urethral bulb, so as to terminate symmetrically at the left tuberosity of the ischium. The anterior rectal wall is bluntly separated and the posterior surface of the prostate exposed, so that parts of it can be enucleated or resected. After resection the point of the skin-muscle flap is fixed with a few silk sutures, and the rest of the wound packed with iodoform gauze.

Spontaneous micturition set in in every case, and continued, except in one case. Only six cases can be pronounced cured, for in the others permanent fistulæ remained.

The Treatment of Hydrocele by Puncture and Injection of Concentrated Carbolic Acid.—H. BACH (*Beiträge z. Klinischen Chir.*, XIV, No. 3)

After reviewing the literature on the subject the author reports 47 cases from BRUNS's clinic; 39 of these were subsequently examined.

The method employed was the following: The fluid is evacuated through a trocar; then usually about 2 c.c. of pure carbolic acid, held in solution by 5–10 per cent. of water or glycerin, is injected with a syringe fitting well on the trocar. The wound is held between the fingers and with the other hand the sac is massaged to distribute the carbolic acid. Before closing the wound by adhesive or zinc plaster it is advisable to cover the scrotum with alcohol to counteract the carbolic acid which may have touched the wound. The patient is advised to wear a suspensory bandage, and is discharged. The patient is told to return if he has pain or the fluid reaccumulates.

He gives the histories of 39 patients. Six of these cases belong to the first decade of life; 5 to the second; 5 to the third; 5 to the fourth; 3 to the fifth; 6 to the sixth; 8 to the seventh; 1 to the eighth. Twenty-three were on the right side, 15 on the left, and 1 was double.

In some cases 600–700 c.c. of fluid was evacuated. In the first year were re-examined 4 cases; in the second, 8; in the third, 11; in the fourth, 8; and in the fifth, 7.

The local reaction was remarkably mild. The pain was not worth speaking of; temperature and symptoms of intoxication were absent. In these 40 injections on 39 patients, 28 were cured after a single injection; 4 cases after the second, and 2 by single punctures which were done several weeks after the injections.

Six cases remained uncured; two of these can hardly be called relapses, as the fluid was of such a small quantity that the patient did not even notice it, and the quantity was the same soon after the operation as it is now after years. In two other cases it is the same; both of them are satisfied with their condition and do not care for another injection. The fifth and sixth cases were first cured and relapsed 1½ years after.

The injection of carbolic acid is therefore to be preferred to iodine, for it is a less painful procedure, which does not interfere even with the ordinary necessities of life.

EYE AND EAR

In charge of WILLIAM OLIVER MOORE, M.D.

Three Cases of Exophthalmic Goiter with Severe Ocular Lesions.—JESSOP (*The Ophth. Rev.*, Nov., 1895)

The author reports three cases: Case 1. Female, aged 40, with extreme proptosis of both eyes, no enlarged thyroid, partial tarsorrhaphy on both eyes. Four days afterward corneal infiltration and chemosis in each eye, resulting in final staphyloma of the cornea.

Case 2. Woman, aged 35, proptosis marked in both eyes, both corneæ sloughed, and the right was enucleated.

Case 3. Woman, aged 24, extreme proptosis, right eye sloughed and was enucleated; left had recurrent attacks of superficial corneal ulceration.

Supernumerary Caruncula Lachrymalis.—STEPHENSON (*The Ophth. Rev.*, Vol. XV, No. 171)

S. relates the case of a female, aged 11 years, upon whose right lower lid was a small reddish growth, oval and about as large as a hempseed, with granular surface. It was immediately behind the inferior lachrymal papilla, and, though near the caruncle, not connected with it. Examination by the microscope showed the growth to consist of a dermic and epidermic portion; the latter was made up of stratified epithelium, the former of connective tissue, which contained hair follicles and sebaceous glands with some muscular fibers.

Shall Opticians Attempt to Fit Glasses?—PILGRIM (*The Refractionist*, II, No. 9)

The author says in conclusion: "It is my unflinching belief that there already exists in most of the States sufficient statutory enactments to put an end to the abuses complained of *if only they were vigorously enforced*. Any law which punishes a druggist for counter-prescribing, or the sojourning quack for practicing, ought, by any fair construction, to be adequate to reach and punish the refracting optician. At all events, is it not our solemn and bounden duty to test the efficacy of such laws, and, if found inefficient, to demand further and more effective legislation? Let the Legislatures of the several States be given clearly and pointedly to understand that such

legislation is not invoked for our selfish benefit or protection. Oculists, as a class, are doing well enough now, and do not need the fostering assistance or protection of the law. *But the public need it, and in its name we should make our demand.* And in this effort have we not a right to expect our professional colleagues—the general practitioners—to stand shoulder to shoulder with us as we in similar movements have stood with them? If as the guardians of the health and lives of the community they conceived it to be their duty to restrain, through the mandate of the law, the druggist and the quack from maltreating the public, can they afford to remain indifferent or inactive in a contest which has for its ultimate object the protection and conservation of the sight of their patients?

"And, finally, if the dumb animals and the teeth of the community are worthy of protection against the onslaughts of incompetency; if druggists and quacks are restrained from tampering with other parts of the human body, is it fair to discriminate against one only of its members by withholding from it every semblance of protection? Nay, more, is it not unreasonable as well as unjust to leave the eye, in structure and function perhaps the most delicate organ of the body, a defenseless prey to the assaults of ignorance and the rapacity of human greed?"

Cavernous Angioma in the Depth of the Orbit.

—KNAPP (*Arch. of Ophth.*, XXV, No. 1)

K. reports the case of a male, aged 39, eye protrudes 10 mm.; V = $\frac{1}{40}$ with + 3.50 D. Optic nerve showed neuro-retinitis; operation; removal of growth without enucleation of eyeball, and optic nerve left intact. The tumor was elliptical and measured 37 mm. in length, 24 mm. in width, and 16 mm. in thickness; the posterior end not much smaller than the anterior. It was blue in color; it was composed of erectile tissue, and inclosed in a capsule.

A Knife-protector.—VEASEY (*Jour. Am. Med. Assn.*, Mch. 28, 1896)

V. describes a protector of delicate eye-instruments especially to be used during their sterilization. It consists of a body, the sides of which are sufficiently high to protect the edge of the knife, extending from which we have an arm for the support of the knife-handle, the latter being held firmly in place by a double spring.

The Bill of a Fish in the Orbit.—THOMSON (*The Brit. Med. Jour.*)

The author relates the history of a patient who, while bathing in Barbadoes, was struck by a fish. He presented, when admitted to the hospital, a small lacerated wound beneath the right orbital ridge, at the junction of its outer and middle thirds. A rough body was felt embedded in the orbit, which required some force for its removal. Some bleeding from the right nostril occurred on its removal. It was found to be the bill of a fish, $2\frac{1}{2}$ in. long, greatest width $\frac{1}{2}$ in., and was armed with six teeth, the longest of which was $\frac{1}{4}$ in. Atrophy of the optic nerve, ptosis, and a change in the optic axis resulted.

Degrees of Astigmatism, however low, when they annoy, should be corrected. CHRISOLM (Rept. Pres. Eye, Ear, and Throat Hospt., Baltimore, '96) says, headache with eye discomforts in young, healthy-looking people, who are not troubled during

period of eye rest, means a low degree of annoying astigmatism. Of 1345 astigmatic eyes which caused pain in eyes or head, 800 had only 0.25 D. That of all the cylindrical lenses of the trial case the 0.25 D. is the most valuable, because it relieves the largest number of headache patients from their tormenting discomforts.

OBSTETRICS; GYNECOLOGY; PEDIATRICS

Department Editor

THOMAS S. SOUTHWORTH, M.D.

Collaborators

GEORGE G. WARD, Jr., M.D., GEORGE R. WHITE, M.D.
EDWARD N. LIELL, M.D., WILLIAM B. NOYES, M.D.

Postdiphtheritic Paralysis.—MATTHIAS NICOLL, Jr. (*Arch. of Pediat.*, XIII, No. 4, 1896)

The following irregular cases of paralysis following diphtheria are recorded by the author:

A 6-months-old baby without previous history regurgitated milk through its nose. An examination and culture from the throat demonstrated the diphtheritic origin of the trouble.

Henry J., $3\frac{1}{2}$ years old, suffered from diphtheria following measles, and shortly afterward developed a left facial paralysis and otitis media.

George R., 3 years old, after nasal diphtheria and croup, suffered from aphonia for six weeks.

George G., $3\frac{1}{2}$ years of age, after a mild tonsillar diphtheria, developed ataxia, paralysis of neck muscles, causing an inability to hold up the head, and, later, paralysis of lower extremities, with loss of patellar reflexes. After two weeks he improved and in two months he was well.

Lilian M., 3 years, after a severe tonsillar diphtheria, with albuminuria, developed aphonia, paralysis of the palate and left facial nerve, and a double paralysis of the diaphragm. Paralysis extended to back, neck, and arms. Regurgitation of food. Death.

The Diagnosis, Prognosis, and Treatment of Albuminuria of Pregnancy.—G. M. CHRISTINE (*Hahnemannian Monthly*, March, 1896, p. 156)

The author refers to the necessity of an early diagnosis through early and repeated examination of the urine, making it possible, if albumin is present, to carry such a case through to a satisfactory termination.

The lives of many women and of many unborn babes have been sacrificed by reason of the sudden manifestation and fatal termination of symptoms of albuminuria in the pregnant woman.

From the seventh month to the end of pregnancy the patient should be kept under surveillance, as albuminuria is mostly a disease of the later months of pregnancy. The gravity of the case is usually proportionate to the quantity of albumin found in the urine.

Having estimated the presence and percentage of albumin, we are to determine next whether the condition be one organic or functional in character.

The microscope will here enter into the differential diagnosis, in examining for tube-casts, pus, etc. Uremia being closely associated with albuminuria, the percentage of urea should also be determined frequently.

Mention is made of LINCK, who defines the albuminurias of pregnancy as of three forms: (a) transitory, occurring in the later months, sometimes attended with eclampsia and casts, the whole

SOCIETY MEETINGS

AMERICAN ORTHOPEDIC ASSOCIATION

TENTH ANNUAL MEETING

Held in Buffalo, May 19, 20, and 21, 1896
 ROYAL WHITMAN, M.D., of New York, President
 [Special Report to the BULLETIN]

(Continued from page 751)

SECOND DAY

The Treatment of the Abscess of High Dorsal Caries.—Dr. E. H. BRADFORD, of Boston, read this paper. He referred to the case of a child with high dorsal caries, who repeatedly became cyanosed, supposed from pressure on the respiratory center. The autopsy showed an abscess in front of the spinal column, pressing upon the trachea just below the larynx, so as to push the trachea forward and diminish its lumen. The opening of such an abscess, the speaker said, was not as difficult as might at first be supposed. An incision should be made down upon the tip of the transverse process at the level of a rib, and then the periosteum should be removed from the rib, and a piece of the rib excised, just as in the operation for opening an empyema. The finger is then introduced into this opening for the purpose of exploration. In the case just described, this procedure might have saved the child's life. As the large vessels were more to the left side, it was better to make the incision on the right side. He had performed the operation in the middle dorsal region, and had succeeded in draining an abscess without difficulty.

Dr. R. H. SAYRE described a case in which there had been a "saddle-bag abscess" at the bifurcation of the trachea. SHAFER, of Chicago, had described a method of cutting down upon these abscesses and draining them, in which the results had been good.

Dr. SHERMAN said he had inadvertently done this operation on a patient in whom an abscess had perforated an intercostal space, producing an accumulation under the skin. The operation was comparatively easy if the way were made plain by the abscess burrowing between the ribs. The greatest difficulty was in making a diagnosis of the existence of an abscess.

Dr. KETCH referred to two cases of high Pott's disease, in which the symptoms pointed to abscess pressing upon the respiratory center. Death occurred suddenly, but no autopsy was obtained.

Dr. GOLDTHWAIT said that Dr. BRADFORD's case had especially interested him, for the autopsy failed to show the cause of the sudden death. The abscess had not ruptured, and there was no evidence of pressure on the spinal cord.

Dr. BRADFORD, in closing the discussion, said that where the disease was so high as to involve the axis or atlas there was danger of direct pressure on the respiratory center, but when it was lower down and was associated with suffocative symptoms, it was fair to assume that an abscess was present. The exploratory incision recommended by him, although certainly a grave procedure, was intended only to meet a grave emergency.

Suppuration in Joint and Spinal Disease, and its Relation to Tubercular Meningitis.—Dr. SAMUEL KETCH, of New York, presented a paper with this title, based on an analysis of 83 cases of his own, and a number reported to him by the members of the association, in answer to a circular letter. In

disappearing after labor; (b) nephritis, so-called, of pregnancy, which begins in the earlier months, attended with a small percentage of albumin and a few casts, some edema, and recurs in subsequent pregnancies, a parenchymatous change being, in all probability, present in the kidney; (c) an aggravation of a pre-existing nephritis, a chronic interstitial or parenchymatous nephritis existing previous to pregnancy, casts and albumin being present in abundance, accompanied by edema and retinitis.

The prognosis depends upon the foregoing contingencies, and in great measure upon early diagnosis and treatment; in any event the prognosis should be guarded.

The prognosis has reference to both mother and child, the former being disposed to eclampsia, abortion, premature labor, peritonitis, septicemia, etc., and the child to death *in utero* and the risks attending premature birth.

In determining whether or not to induce labor prematurely, and thus empty the uterus, the following points will be of aid: A rapidly increasing percentage of albumin, a weakening heart, rapid loss of strength, extension of anasarca, threatened or occurring eclampsia.

Subsequent to parturition and the puerperium, the patient should be advised against another pregnancy, which, if recurring, may bring her the same array of symptoms.

Enlarged Bronchial Glands.—PHILIP F. BARBOUR *(Pediatrics, I, No. 5, 1896)*

Enlarged bronchial glands occur more frequently than is commonly supposed. Normally, bronchial glands occur about the bifurcation of the trachea and following the course of the large bronchi. The lymphatic ducts of the lungs begin from minute stomata between the alveolar epithelium and empty into the lymph lacunæ, these stomata being enlarged during inspiration. Superficial and deep lymphatics unite in carrying their lymph to the bronchial glands, which generally become black instead of pink in the course of time by this addition of foreign matter.

An enlarged, inflamed, or hypertrophied bronchial gland, cannot properly perform its work, interfering with the return-flow of lymph from the lungs, and this may eventually result in a lobular or interlobular formation of new tissue, and, by secondary pressure, congestion and inflammation in the air-vessels.

The normal resistance of an inflamed gland is diminished, readily admitting tubercle bacilli, because the phagocytic action of the gland has ceased.

Tuberculosis in children starts, as a rule, from the lymphatic system, especially from the bronchial glands, rather than from the apices of the lungs as in adults. The initial trouble with the bronchial glands may have been measles, pertussis, bronchitis, or a pneumonia. The peculiar spasmodic cough lasting many months after the decline of a whooping-cough, somewhat resembling it in character, is not infrequently caused by enlarged bronchial glands, which may sometimes be mapped out by delicate percussion.

By auscultation just internally to the root of the spine of the right scapula which corresponds with the location of bronchial glands, you will sometimes obtain a sonorous or large mucous râle which may be conveyed over the whole chest. These glands exert sufficient pressure upon the bronchus to set up inflammatory processes, which autopsies will frequently demonstrate.

his own 83 cases, 51 per cent gave evidence of suppuration, and in exactly 50 per cent. of these the abscess had not opened. Owing to an accident to his paper, he had at hand only a portion of it, and could not give the statistics and conclusions in full. In a general way it seemed fair to conclude, he said, that the suppurative process had no direct bearing on the question of the development of tubercular meningitis.

Dr. J. E. MOORE said that he thought the evidence presented warranted the statement that the tubercular abscess did not cut a very important figure in the development of tubercular meningitis, and that operative procedures were not so likely to be followed by tubercular meningitis or general tuberculosis as had been generally supposed.

Dr. A. M. PHELPS, of New York, said he did not see how it was possible for suppuration *per se* to produce a tubercular lesion, and hence there was no reason to suppose that a suppurative process would have any bearing on the development of tubercular meningitis.

Dr. GOLDTHWAIT remarked that the cases of tubercular meningitis that he had observed had all presented the well-known clinical signs and symptoms of this disease, but the autopsies had invariably disclosed a general military tuberculosis.

Iodoform-Glycerin in Tuberculous Osteomyelitis.—Dr. HARRY M. SHERMAN, of San Francisco, read a paper on this subject. (See page 805.)

Dr. ROSWELL PARK, of Buffalo, said that he had given the method by intra-articular injections a fair trial at one time, but had seen but little benefit from it, and having found in subsequent excisions on two patients that the iodoform had remained unabsorbed, and had acted as a foreign body, he had come to the conclusion that the method was not worthy of confidence. The injections of zinc chloride were much more useful, and even Beers's congestion method by the rubber bandage held out a better prospect of improvement.

Dr. J. E. MOORE said that he had been disappointed with these iodoform injections in every instance except in the treatment of psoas abscess. Here, they did seem to be of some use.

Dr. H. L. TAYLOR, of New York, said that while iodoform injections into tuberculous joints might be ineffectual, the injection of an ethereal solution of iodoform into old sinuses was deserving of extended employment.

Dr. ROSWELL PARK said that as he believed that the germicidal action of iodoform was due to the liberation of iodine, he proposed to institute some experiments with a mixture of iodine and glycerin.

Dr. JOHN RIDLON, of Chicago, described several cases that had grown steadily worse while other surgeons had been treating them with iodoform injections, and without mechanical protection. He had himself treated about thirty cases by intra-articular injections of iodoform. In about one-third the condition of the patients had been satisfactory; in another third the patients had remained stationary; and the remainder had appeared to grow steadily worse.

Dr. A. M. PHELPS said that he had tried the method long ago, and had promptly abandoned it because of the negative results. The glycerin was in itself useful by virtue of its hygroscopic action.

Further Observations on the Use of Hydrochloric Acid in Bone Necrosis of Tubercular Origin.—Dr. JEROME HILTON WATERMAN, of Buffalo, related the histories of some cases in which he had tried the effect of applications of hydrochloric acid of full strength. The injections were usually

made twice a week, the acid being introduced by means of a pipette of glass to the bottom of the sinus. After about one minute, the sinus was washed out with a saturated solution of bicarbonate of sodium. The method was chiefly of value where there was not much necrosed bone. The treatment was sometimes rather tedious, and although the patients had not complained much of the applications, it was better to use a local anesthetic.

Dr. W. R. TOWNSEND, of New York, said that in some cases this acid treatment appeared to be of service. The best results were obtained in superficial sinuses.

Dr. HOADLEY, of Chicago, said that long ago Dr. ANDREWS, of his city, had been in the habit of treating necrosed bone by applications of a 5-per-cent. solution of hydrochloric acid. This strength had proved efficient, and there was not the same danger of injuring other tissues with the application.

Dr. SHERMAN said that it was not the necrosed bone that we should attack, but the granulation tissue in the bone.

The Use of Dry Heat of High Temperature in the Treatment of Chronic Joint Affections.—Dr. WILLIAM E. WIRT, of Cleveland, described the apparatus for this hot-air treatment. It consists of a copper cylinder, with wooden hoops and rubber hoods at each end. The limb was surrounded by this drum—say at the knee—and after placing cotton under the popliteal space, so as to secure uniformity of heating and absorb any moisture, the air in the drum is heated by means of a Bunsen gas-burner placed beneath. By having three holes in the drum sufficient ventilation is secured to keep the air in the drum dry. If this point were attended to, many persons would stand with benefit a temperature of several hundred degrees—usually 250° to 300° F. This is kept up for one hour. The treatment causes hypersecretion, relieves pain, and temporarily increases the mobility of the joint. The two latter last for some hours.

Division of the Hamstring Tendons by the Open Method for Correcting Malposition and Securing Rest in Tubercular Disease of the Knee.—Dr. BERNARD BARTOW, of Buffalo, said that division of the hamstrings would more quickly relieve pain and secure rest than mechanical appliances. It quickly modified the severity of the inflammation and shortened the duration of the disease. The operation was, of course, done aseptically, and a plaster-of-paris splint is applied immediately over the dressings. More or less subluxation of the tibia might remain after this division, but might be subsequently removed by the use of the osteoclast.

Dr. WIRT said that the method had been commonly resorted to by the general surgeon, but the orthopedic surgeon felt that in most instances he could straighten the joint more satisfactorily by mechanical treatment alone.

Dr. R. H. SAYRE said that it was usually possible to straighten the limb by proper traction, and where this could be done, it was preferable to dividing the hamstrings, even though these tendons united without difficulty. But even should such division be required, it should not be forgotten that it was only one step in the treatment, and that the joint required to be carefully protected.

Dr. MCKENZIE said that he had never seen a case in which mechanical means alone had not been able to correct the deformity, and hence, until such treatment had been proved incapable of accomplishing this task, would he consider division of the hamstrings a justifiable operation. The only thing

which seemed to prevent a relapse of the deformity in the boy exhibited was the inability of the hamstrings to reproduce the deformity.

Dr. RIDLON said he was positive that any joint still diseased could be straightened without operation. He was accustomed to use some form of Thomas brace, with traction, but where most of the rigidity was due to fibrous adhesions, and there was no acute inflammation present, he would reduce the deformity under anesthesia by manual force.

Dr. BARTOW, in closing the discussion, said that the open method was the only safe method of performing this operation. In his cases he knew of no other alternative except excision, and certainly division of the hamstrings was preferable to this.

A Theory of the Ultimate Etiology of Deformity, and its Practical Application.—Dr. ROYAL WHITMAN, in a paper on this subject, called attention to the well-known facts that the erect posture was one comparatively recently acquired, and that in the process of evolution and adaptation, those structures whose function had been lost, were subject to degeneration and disease, and those functions most recently acquired were most susceptible to weakness and injury. The erect attitude was difficult of acquirement, as shown in the effort of the infant to stand; it was also an attitude difficult to maintain against the force of gravity, and especially so if the structure of the body was in any way weakened. The ordinary so-called postural deformities were then explained. The flexion and contraction deformities were, however, of special interest to the orthopedic surgeon. None of the theories that had been advanced to explain this universal flexion was satisfactory, but if one accepted the morphological standpoint, it would be evident that as the erect posture was a newly acquired attitude, so also the uses of the limbs proper to that posture were newly acquired. Complete extension of the limb in the support of this posture required not only the greatest expenditure of nervous energy, but also the greatest strain upon the joint-surfaces, and when the ability to assume this attitude became impaired, the affected member became flexed—in other words, it involuntarily assumed an attitude common to the lower or quadrupedal form of locomotion. Flexion, whether as the result of painful joint disease, or in hemiplegic deformity, was usually an evidence of unbalanced nervous influence and of preponderance of power of its lower or reflex centers. In joint-disease, the cause was local irritation and consequent muscular spasm; in the second, the inhibitory influence of the higher center was impaired or removed. The erect posture was an evidence of the higher position of man in the scale of evolution; a position due solely to the greater development of the higher centers of the brain. When the stimulation and controlling force of the higher center was directly or indirectly impaired, the more difficult and newly acquired attitudes were disused, and the affected part fell backward toward the type from which it had been differentiated.

The Cause of the Limp of Hip-joint Disease.—Dr. HARRY M. SHERMAN gave a brief résumé of this subject, as the paper had already been published. He said that as a result of bone tuberculosis there was a wasting of the osseous trabeculae and the development of an area of structural weakness, usually in the neck of the femur. The mechanical portion of his theory, which cannot be well explained without diagrams, assumes that the head and neck of the femur constitute a column and bracket, or what is known in mechanics as a "cantilever," and

that they must be governed by the well-known laws controlling the action of a cantilever. Reasoning on this basis, he had built up a theory of the causation of the limp of hip disease. He assumed that there is a "bone sense" akin to the muscular sense, and that the center of gravity of the body is brought as nearly as possible over the head of the femur so as to reduce to a minimum the strain on the neck of the femur—in other words, relieving the strain upon the structurally weak point.

Dr. WIRT remarked that in running the femur supported the weight of the body, plus the momentum.

Dr. PHELPS said that the author's explanation seemed to be mechanically correct, but personally he believed that the capsule of the joint became swollen with tuberculous material, and that, consequently, the patient pulled the limb into partial flexion in order to relieve intra-articular pressure. This involved the necessity of the patient swinging himself, in order to secure a proper balance in walking.

Dr. BRADFORD said that part of the limp was often due to a lack of free motion in the hip-joint. In some cured cases, with the limb badly adducted, the patient throws himself over to one side because of the movement in the lumbar spine.

THE PRESIDENT thought that one weak point in the argument was the necessity of assuming a voluntary adaptation of the limb.

Dr. L. A. WEIGEL said that in the early stages, where the joint was not swollen, there was still a limp. Again, Dr. JUDSON had shown that those having a decided limp after recovery from hip disease could be educated, by proper drilling, to walk so that the limp was hardly noticeable.

Dr. SHERMAN, in closing the discussion, said that there were many cases in which there was no effusion into the joint, and in which it was not possible to assume that the starting-point of the signs and symptoms of hip-joint disease was in the capsule. Where the limb was adducted, he believed this was largely due to shortening of the neck of the femur, and a corresponding reduction in the leverage upon which the weaker abductors must act. When the lesion is in the upper part of the acetabulum there is no position which will relieve the diseased part of strain, and all that can be done is to shorten the step and so allow it to be operative for the shortest possible time. He had seen but one case in which the patient had been so educated as to do away with the limp, and in that one it was evident that every step was made with effort.

Femoral Osteotomy for Correction of Hip Deformity in Adults.—Dr. A. R. SHANDS, of Washington, D.C., read a paper on this subject, in which he advocated Gaunt's inter-trochanteric osteotomy. The osteotome should be introduced in the long axis of the femur, about a finger's breadth below the trochanter minor, and forced down to the bone through the soft parts without previous incision with a knife. Having cut the periosteum, the instrument is turned transversely and the bone divided partially. The fracture is completed by moderate manual force. He preferred to use a Gaunt's osteotome, but with a blade only three-fourths of an inch wide. The dressing consisted of sterilized gauze retained by adhesive plaster, and a plaster-of-paris spica to maintain the limb in the correct position.

Dr. A. M. PHELPS said that he had been recently operating upon ankylosed joints, particularly the hip, to restore motion. In doing this, he had taken advantage of the well-known fact that fractures do not unite when fibrous tissue falls in between the ends of the fragments. To utilize this in the hip-

joint, he had cut through just above the lesser trochanter, and then, by the exercise of a tremendous force, had drawn the limb down. After having then removed about three-fourths of an inch of the femur, he had inserted a portion of the fascia between the ends of the bones. He would, of course, not operate in this way until all active disease had ceased.

Dr. SHERMAN said that he would limit the subtrochanteric osteotomy to those cases in which there was no motion between the femur and pelvis. After doing the operation the limb should be put up well abducted, to allow for a certain loss of position through adduction.

Dr. TOWNSEND referred to several adult cases in which the operation had been successful.

Dr. GOLDTHWAIT and Dr. TESCHNER also cited good results in their practice from this operation on adult cases.

Dr. J. E. MOORE said that although the result was not likely to be so good in cases in which there was some motion in the joint, he would not absolutely limit the operation to cases in which there was an entire absence of motion.

Dr. SHANDS, in closing, said that it was desirable that there should be slight flexion, as it added very much to the patient's comfort when sitting down.

A Report of Cases of Osteo-sarcoma of the Hip.—Dr. ARTHUR J. GILLETTE, of St. Paul, reported three cases in which he had found it very difficult to differentiate malignant disease of the hip from tubercular and rheumatic affections of that joint. These cases had taught him that months might elapse after the onset of the disease before the occurrence of deformity. There had been no fixation, very little atrophy, and no shortening, except in the last case, and then only after fracture of the bone.

Dr. R. H. SAYRE recalled a case of osteo-sarcoma of the knee. At the time he had first seen it, it had presented the usual characteristics of a tubercular knee. After treatment by mechanical means for about a year, excision was determined upon, but at the operation it was discovered that the case was one of giant-cell sarcoma.

Dr. SHERMAN referred to the case of a girl of 14 years, in whom he had found it necessary to amputate through the hip-joint. Although the operation had been some time ago, the child was now in excellent health, and without a sign of recurrence.

Dr. J. E. MOORE referred to a case of sarcoma of the knee, developing after the kick of a horse. The swelling, atrophy, and muscular spasm had led to the diagnosis of a tubercular knee-joint, but the case subsequently proved to be one of sarcoma, although marked improvement followed traction with weight and pulley.

Tuberculosis of the Wrist and Carpus.—Dr. JAMES E. MOORE, of Minneapolis, presented a paper on this subject. He said that wrist-joint disease comprised about 5 per cent. of all tubercular joint-diseases, and occurred most commonly between the ages of 50 and 60. All of his operative cases had been of the bony type. The disease was insidious in its development, pain and muscular spasm often being absent. The diagnosis was made from the swelling, atrophy, flexion, and peculiar position of the thumb and fingers. The pathology was the same as in tubercular disease of the other joints, except that the tendon-sheaths were often involved. The prognosis was always grave on account of the marked tendency to pulmonary tuberculosis. Children often recovered from the joint-affection, but rarely lived to maturity. In

adults the disease almost invariably ended in pulmonary phthisis. For children, the rest treatment by means of plaster-of-paris dressings was to be recommended. In recent adult cases this treatment should be combined with injections of iodoform emulsion. In the presence of suppuration, excision or amputation was indicated, for partial operations were dangerous. Early excision did not give good functional results. Amputation is often the most conservative treatment, and is advised: (1) When the disease is well marked and rapidly progressing; (2) when well-marked wrist-joint disease is associated with incipient pulmonary phthisis; and (3) when there is well-marked phthisis with wrist-joint disease which is causing much suffering. The lung disease often improves markedly after amputation.

Dr. MCKENZIE said that he had had very good results in cases of wrist-joint disease, from injections of a 10-per-cent. solution of iodoform in glycerin. There had been very little reaction after the injections, and sometimes he had observed that the existing pyrexia had been reduced by them.

Dr. SHERMAN said that he had had comparatively little experience with wrist-joint disease, but it had seemed to him better, if the disease were severe, to resort to amputation. This was sometimes necessary to relieve suffering merely.

Dr. GILLETTE expressed his surprise at hearing mention made of the suffering attendant upon wrist-joint disease. He had always thought it was associated with but little pain.

Dr. MOORE, in closing, said that occasionally there was a good deal of pain, and in one instance it had been so intense as to call for amputation.

The Mechanical Treatment of Ingrown Toenail.—Dr. HENRY LING TAYLOR, of New York, read a paper with this title. [This will appear in an early issue.]

(To be continued)

AMERICAN GYNECOLOGICAL SOCIETY

TWENTY-FIRST ANNUAL MEETING

Held in New York, May 26, 27, and 28, 1896

WILLIAM M. POLK, M.D., of New York, President

[Special report to the BULLETIN]

(Continued from p. 792)

THIRD DAY

Dr. T. A. EMMET, of New York, said that while watching ALEXANDER operate he had had an opportunity to place his finger in the vagina, and he had noticed that the uterus when anteverted also became prolapsed. It was the degree of prolapse, and not of version, that did harm, and hence he had never done Alexander's operation. Another reason for not doing the operation was that he was able to relieve all these cases by plastic surgery.

Dr. G. M. EDEBOHLS, of New York, said that the Alexander operation had been found to have no deleterious influence on subsequent pregnancies, while the comparatively young operation of vaginal fixation had already been the cause of serious difficulty in subsequent labors. In his own experience, eight pregnancies had followed the operation of ventral fixation, and two of these patients had died—one from heart disease before the beginning of labor, and the other from the retention of a septic fetus for a month and a half. Regarding the matter of technique, and its bearing on labor, Dr. EDEBOHLS said that probably the best way of performing ventral fixation was to attach the uterus squarely by the

fundus, bringing the uterus up in a natural way to the abdominal wall, and fastening it where it would naturally rest without dragging on the lower attachments.

Dr. H. A. KELLY said he had sent out 125 letters in order to aid in the investigation of this subject, and had in this way heard from 46 married and 28 single women who had been subjected to the operation. Among the 46 married women there had been 13 pregnancies, with difficult labor. In one case there had been sloughing following the ventral fixation, and extensive adhesions had formed between the uterus and the abdominal wall. In the other cases there was only a long, delicate, fibrous band, so that the operation did not produce "fixation," but "suspension," and allowed all the normal movements of the uterus, but did not allow it to be retroverted. He would therefore insist that the proper technique of this operation was that originally described by him, and used with satisfaction in about two hundred and fifty cases. Two silk sutures were passed in the peritoneum, and through the uterus just posterior to the ridge at the top of the fundus. The attachment might be made low down, and still not fix the uterus more than was desirable.

Dr. A. LAPHORN SMITH said that he had done ventral fixation over fifty times according to Dr. Kelly's method, and the only trouble from subsequent pregnancies had been that one patient had aborted at the fifth month. In one case he had had occasion to reopen the abdomen a year afterward, and had found a delicate band running from the uterus to the abdominal wall. He preferred to use two buried silk sutures, passed through the aponeurosis, then through the uterine wall, and out through the other aponeurosis. He thought Dr. KELLY's suggestion to take in less of the abdominal wall would probably avoid subsequent trouble. In some cases of extensive disease of the ovaries and tubes he had reluctantly left the appendages behind, and had been surprised to find that the simple raising of them to a proper position had sufficed to completely do away with all the previous pain and distress.

Dr. ASHTON thought that the statistics of ventral fixation were valueless because of the many modifications in the technique. The idea should be to not only suspend the uterus, but keep it tilted somewhat forward. In two instances he had had an opportunity to examine the adhesions left after the operation, and in both he had found a slender band of attachment, about 2 in. long. Notwithstanding what Dr. EMMET had said about curing all these cases by plastic work and pessaries, he had personally never seen a cure effected in this way.

Dr. HENRY D. FRY, of Washington, D. C., referred to a recent case in which the history indicated that a ventral fixation had been performed on the woman when she was about one month pregnant. When seen, she was about five months pregnant, and the operation had not in any way interfered with the pregnancy. She was finally delivered, at term, of a child weighing over six pounds, after an easy labor of a few hours. The speaker said that very recently he had done a ventral fixation on a woman 10 weeks pregnant, in order to relieve an incarcerated uterus. So far there had been no ill effect on the pregnancy. In considering the relation of ventral fixation to subsequent pregnancy, he believed it was important to take into account the length of time between the operation and conception. There should be less liability to interference with pregnancy after sufficient time had elapsed to allow of the formation of a slender ligament between the fundus uteri and the abdominal wall.

Dr. NOBLE, in closing the discussion, said that he saw no reason for performing suspensio uteri in cases in which the appendages had been removed, as Dr. LAPHORN SMITH had said; it was much better to extirpate the uterus.

The Diagnosis and Treatment of Ureteritis in Women.—Dr. EDWARD P. REYNOLDS, of Boston,

presented a paper on this subject. He said that the two most characteristic symptoms of ureteritis were: (1) Frequent micturition, increased by the erect posture; and (2) a bearing-down pain, increased on standing, but usually completely relieved by a few hours' rest in bed. Vaginal examination elicited tenderness and a desire to urinate on making pressure over the vaginal portion of the ureter. Cystoscopic examination would usually show gaping or redness and swelling of the ureteral orifice or of the adjacent mucous membrane. In eight cases of ureteritis in which he had catheterized both ureters it had been found that the percentage of urea was in every instance decreased in the urine obtained from the diseased side. Where the ureteral orifice and adjacent vesical mucous membrane were inflamed, relief would usually follow the strictly localized application of solid nitrate of silver. The patient should be made to drink three or four pints of water, should avoid asparagus and strawberries, and should partake sparingly of other fruits and the highly flavored vegetables. Since discovering the deficiency in urea excretion, he had tried the administration of small doses of iodide of potassium and mercury, and had been greatly pleased with the result in cases of ureteritis. This condition, he thought, was often mistaken for renal colic or for acute catarrhal salpingitis. At the beginning of the attack there would be renal tenderness on deep pressure, and later on there would be tenderness located at McBurney's point. Still later a new spot of tenderness would be found at a point about one inch above Poupart's ligament.

Implantation of the Ureter in the Bladder.—

Dr. HERMANN J. BOLDT, of New York, read a paper on this subject. He said that it was his belief that injuries of the ureters were of more frequent occurrence in connection with vaginal hysterectomy than would appear from the number of reported cases. If a ureter were injured during an operation, it was not necessary for it to be manifested by the dribbling away of urine during the first few days, because, the ligature or clamp compressing it, necrosis must first follow the traumatism. Ischuria, taken in conjunction with colicky pain and tenderness in the region of one kidney, should lead us to make a cystoscopic examination. On the insertion of the ureteral catheters, no urine will of course flow from the injured ureter. By placing the patient in the dorsal position, one can, by the aid of proper specula and the exercise of patience, succeed in detecting the fistulous opening. All uretero-vaginal fistulæ should be operated upon as soon as possible after the diagnosis has been established, on account of the great liability of the kidney to become infected. The cystoscopic examination having demonstrated an occlusion of one or both ureters, the ligature or clamps must be at once removed in the hope that patency may be restored. If in the course of an operation it is discovered that the ureter has been injured, there should be no hesitation in applying a ligature to the distal end of the ureter, and implanting the proximal end in the bladder. A ureteral catheter having been inserted into the injured ureter, the bladder is temporarily distended with sterile water to facilitate the selection of a desirable location for the implantation

and the making of the incision, and an incision $\frac{1}{4}$ ctm. long is made into the bladder. As the knife touches the mucosa, the water in the bladder is allowed to escape by means of a catheter. A long pair of uterine dressing forceps is next introduced through the urethra and passed out through the artificial opening in the bladder, where it seizes the ureteral catheter and draws it back through the bladder wound and out of the urethra. The ureter is next invaginated through the bladder wound, and several very fine silk sutures are passed quite superficially through the ureter, but through the entire thickness of the bladder, except the mucosa. After the abdomen has been closed a permanent catheter is allowed to remain in the urethra alongside of the ureteral catheter so as to keep the bladder empty. Dr. BOLDT said that the ureteral catheter should not be left longer than 48 hours, because by that time the adhesions between the bladder and the ureter were sufficiently firm, and to leave it in longer was to invite a ureteritis. Except in those cases in which there is so much ureter lacking that it is impossible to do an implantation, nephrectomy for the obliteration of the fistula should be a *dernier ressort*.

Dr. M. D. MANN said that he had been particularly interested in the statement made in Dr. REYNOLDS's paper regarding the deficiency of urea in the urine from the affected ureter. He thought it might be explained by reflex action. It was also important to note that the symptoms of ureteritis were chiefly due to the irritation of the bladder around the ureteral orifice. He found that the local application of nitrate of silver gave the most relief. He had been a little fearful of the passage of bougies into the ureters, on account of the great danger of causing traumatism or infection. The chronic cases were the more common, but acute cases were met with, and were often overlooked. The acute cases that he had observed had followed labor, as pointed out by Dr. SKENE. He felt sure that much of the pelvic distress complained of by women was due to the passage of irritating urine through the ureters. The most important part of the treatment was, therefore, that directed to the improvement of the general health. His attention had not before been called to the special points of tenderness described in the paper.

Dr. E. P. DAVIS said that he had known the chewing of tea leaves to irritate the urine and set up a most obstinate ureteritis.

Dr. A. LAPHORN SMITH said that he looked upon ureteritis as a local affection, due to an abnormal condition of the urine. Urea, in itself, caused no trouble, but the products of deficient oxidation—uric acid and oxalic acid—were very irritating. The treatment should consist in plenty of outdoor exercise, the prevention of overfeeding, and the drinking of two quarts of water daily. The urine should at the same time be made bland by the administration of a drachm of bicarbonate of sodium daily.

Dr. REYNOLDS, in closing the discussion, said that there was great danger of making false passages in efforts to explore the ureters with rigid instruments. He believed that we would in time find that ureteritis was usually secondary to disturbance of the kidney, and that the ureteral complication would be valuable in diagnosis.

Intestinal Bacteria as a Source of Infection Complicating Obstetric Operations.—Dr. EDWARD P. DAVIS, of Philadelphia, reported two cases of fatal ptomaine intoxication, due to intestinal bacteria. The first was a girl of 21, who had suffered from great tympany and severe nausea and vomiting almost from the completion of labor. Death oc-

curred, with high temperature, five or six days afterward. The autopsy, made by Dr. BEVAN, showed numerous ulcers in the small intestine, containing enormous numbers of the colon bacillus and the micrococcus pyogenus albus. The patient had been delivered by cesarian section, owing to extreme pelvic deformity, but the wound had healed primarily, and there was no evidence of sepsis. The second case was a young girl, who at the time of labor had had a temperature of 101° F. and a pulse of 120 without assignable cause. Immediately after labor her temperature was 105° F., pulse 130, and respirations 36. The lochial discharge was not offensive, and douching and scraping had no distinct effect on the temperature. The bowels were freely moved. The patient finally became maniacal. No septic bacteria were found in the blood. The autopsy showed a congenital abnormality of the large intestine—a loop of bowel extending downward in the median line. It contained masses of inspissated feces. The cause of the mania appeared to be an autoinfection from fecal absorption from this anomalous portion of bowel. Dr. DAVIS stated that a search of the autopsy records showed that in 300 autopsies such a loop of bowel had been noted 18 times. In 14 of these cases there was a history of insanity; 2 of the patients committed suicide, and it was noted that 2 were unconscious at death. The low temperature, very rapid pulse, and the lack of chill and other symptoms of wound infection would serve to distinguish this condition from the ordinary cases of puerperal sepsis.

Dr. R. A. MURRAY cited two or three cases giving a somewhat similar history. He said that the cases reported in the paper served to emphasize the importance of keeping pregnant women under medical supervision. It was desirable in these cases to give an "antiseptic cathartic" like calomel, rather than a saline alone.

Dr. EGBERT H. GRANDIN, of New York, said that the cases reported in the paper offered an explanation of certain cases hitherto exceedingly obscure, but he feared that it might have a tendency to lead us to rest satisfied with a diagnosis of intestinal infection and toxemia, and to lead us away from the diagnosis of true puerperal septicemia. The paper should also teach us the lesson that we were too apt to take for granted that the pregnant woman passed a sufficient quantity of normal urine, and that her bowels moved regularly and freely. The gravid woman should be watched by the physician from the inception of pregnancy to the time of labor.

Dr. PHILANDER A. HARRIS, of Paterson, also expressed the hope that the paper might not make physicians too ready to explain away every case of infection occurring in the puerperium.

Dr. CUSHING said that the cases reported had presented just those symptoms which laparotomists had long recognized as indicative of intestinal infection.

Dr. DAVIS, in closing the discussion, said that he had based the diagnosis in the first case upon the comparatively low temperature, the high pulse, the absence of a chill, the fact that the milk came in properly, that there was no sweating, and that after vomiting the patient became hungry. This was not the clinical picture of ordinary puerperal sepsis. According to Professor HARE the intestine could best be rendered aseptic by giving $\frac{1}{100}$ grm. of the bichloride of mercury several times a day, for a number of doses, in conjunction with salines.

The Treatment of Intra-ligamentous and Retro-Peritoneal Uterine Fibro-myomata.—Dr. WILLIAM H. WATHEN, of Louisville, read a paper

on this subject. He stated that he removed small tumors through the vagina, and, when possible, enucleated them from the broad ligaments or uterine wall without removing ovaries or tubes. Where the tumors could be enucleated without excessive hemorrhage, the uterine and ovarian arteries need not be interfered with. The special object of the paper was to describe a method of operating where the tumors were too large to be removed through the vagina, and where they were so firmly wedged in the pelvis as to make the abdominal difficult and dangerous. After the woman had been prepared, both for a vaginal and an abdominal operation, the vagina should be separated from the cervix, the uterine arteries controlled, and the lower part of the uterus separated from its attachments. The abdomen is then opened, and the ovarian arteries ligated close to the pelvic wall. The enucleation of the tumors may now be rapidly completed, with but little danger of hemorrhage or of wounding the ureters or bladder.

Dr. CUSHING said that as retro-peritoneal tumors usually originated in the cervix, they might be below the uterine arteries. Under ordinary circumstances the splitting of the capsule of the tumor would allow of its easy removal.

Dr. P. A. HARRIS said that had he known of this method a year ago he thought he would have been enabled to do a difficult operation in a much shorter time.

Dr. S. C. GORDON said that he had found that the vagino-abdominal operation often greatly simplified the case.

Dr. J. TABER JOHNSON suggested that, in addition to the anterior and posterior flap, a lateral flap should be made, so as to allow of some of the dangerous adhesions slipping out of the way. We could then close in the wound by a continuous suture.

THE PRESIDENT said that in the class of cases under discussion he would recommend the cutting off of the blood supply as close as possible to its origin—in other words, the ligation of the anterior trunk of the internal iliac artery. This could be most easily accomplished by following out the old technique for ligating the posterior trunk of the internal iliac for aneurism. Experience had abundantly proved the fact that the collateral circulation could be depended upon to keep up the vitality of the parts in this region.

Dr. WATHEN, in closing, said that the uterine artery seemed to be invariably below the tumor, and hence in easy reach. In the cases under discussion, no lateral flap could have been made. The adhesions in the pelvis were of no consequence; it was the unfolding of the broad ligament that was of importance.

Cesarian Section; Suture of the Uterus versus Total Extirpation.—Dr. HENRY C. COE, of New York, in presenting a paper on this subject, said it was his purpose simply to extend the indications originally laid down for the Porro operation in strict accordance with the teachings of modern surgery. He referred to three previously reported cesarian sections, and stated his belief that it would have been wiser if he had removed the uterus in these cases. One of these patients was a miserable tuberculous dwarf, illegitimately pregnant, and she had since required another section as she had not come under observation until eight months advanced. Another patient had had a small fibromyoma, which was now increasing in size, and would eventually require removal. The details were then given of a fourth case, in which, contrary to the advice of his colleagues, he had performed

total extirpation. His reasons for so doing were: (1) The necessity for rapidly completing the operation on account of the woman's enfeebled condition; (2) doubt as to the aseptic condition of the uterus; and (3) a consideration as to the woman's future welfare, particularly the danger of again becoming pregnant. To his mind it was carrying conservatism rather far when we deliberately exposed to the risk of another capital operation, a miserable, rachitic dwarf, illegitimately pregnant, whose offspring is predoomed, and whose own life is in great danger of being sacrificed to a sentiment, or to a scientific principle, if one preferred. He could not accept the statement that suture of the uterus was not accompanied by shock, for he had repeatedly observed marked shock after this operation in patients previously in good condition. Again, the time necessary to properly complete a cesarian section was often greater than that in an ordinary hysteromyomectomy. It was often only by the latter operation that one could positively eliminate sepsis.

Dr. GRANDIN said that where the uterus was infected or contained fibroids we were justified in doing a total hysterectomy, instead of attempting to do the impossible—curing the patient by cesarian section, followed by uterine suture. But beyond this he could not go. Given a case advanced to a point where symphysiotomy and induction of labor were impossible, and where the uterus and appendages were normal, he did not think we were justified in doing more than a cesarian section. It was our business simply to deliver the woman of a live child, if possible, by a method which had been proved safe, when the operation was an elective one and done by an operator familiar with the method of uterine suture. If, however, the operation were not elective, but had been preceded by the attempts of several physicians to deliver by version or forceps, it was so probable that the uterus had become infected that it would be better to remove it. Statistics proved that the second cesarian section was safer than the first. Medical men were not called upon to remove the healthy tubes and ovaries from any woman, because of the risk she might be subjected to should she become pregnant a second time.

Dr. GEORGE T. HARRISON, of New York, said he would subscribe to the last statement of the preceding speaker. The main point seemed to him that where there was reason to believe the uterus had become infected, the safer course was to perform total extirpation.

Dr. NOBLE said that he could not agree with the reader of the paper that it was our business to remove the tubes and ovaries to avoid a possible pregnancy, and even in the presence of fibroids he would prefer to do a simple cesarian section, provided it appeared probable that he would subsequently do a myomectomy if this operation were demanded.

Dr. R. A. MURRAY indorsed the views of Dr. NOBLE. We should not do several operations at once, simply because the abdomen was open, for statistics showed that the additional shock was liable to prove disastrous. Medical men had nothing to do with the ethical question involved.

Dr. P. A. HARRIS said that he had understood the reader of the paper to say that he had performed cesarian section in one of the cases because of an internal conjugate of $2\frac{3}{4}$ in. That in itself was not sufficient ground for this operation, for he had himself delivered a child through such an internal conjugate by symphysiotomy, and later patient had been easily delivered of another child of nearly the same size. It seemed to him rather radical to extirpate the

uterus simply because of bad handling prior to the operation.

Dr. E. P. DAVIS said that he held it to be the right of a woman who could not be delivered by ordinary methods to say to the obstetrician that, if the risk were no greater from stopping procreation than from not doing it, procreation should be stopped. The hysterectomy proceeds smoothly, and lactation is not interfered with. Regarding the remarks of Dr. HARRIS, he would say that no man could tell by pelvimetry alone whether or not a given operation should be performed. It was the absolute duty of the obstetrician to test the relations of the fetal head to the maternal pelvis.

Dr. H. J. GARRIGUES said that he wished to protest against Dr. DAVIS' statement that a woman should have the right to ask to be made sterile. In cases in which the mother was in advanced tuberculosis or cancerous disease, the right of the child should be considered, and we should save children from such maternity.

Dr. COE, in closing said that the right of the child, as stated by Dr. GARRIGUES, was often given too little consideration. Without wishing to appear too radical, he would again state his conviction that we must look into the future, particularly in illegitimate pregnancies occurring in enfeebled and sickly mothers in whom the chances for child-bearing were poor.

Drainage of the Stump in Abdominal Hysterectomy.—Dr. HENRY T. BYFORD, of Chicago, presented a report of 68 cases of hysterectomy, with various modifications of drainage. Three of these patients died, and he believed that had not drainage been uniformly employed in this series there would have been in all probability twice as many deaths. His present method was to sew up the stump with catgut, and drain through an opening in the anterior vaginal wall, just in front of the cervix.

Dr. G. T. HARRISON said that while GOFFE and DUDLEY were among the first to cover in the stump with peritoneum, the first operation of this kind, so far as he knew, had been performed in the Woman's Hospital by Dr. T. A. EMMET, in 1878, in connection with a myomectomy. The only defect in the technique at that time was that proper provision was not made for drainage.

Dr. NOBLE said that after having tried various methods of drainage, and finding little indication for their use, he could not but feel that the careful drainage, which the reader of the paper had provided for, was unnecessary.

Myomectomy; Fatal Secondary Hemorrhage with Rising Temperature.—Dr. HENRY D. FRY, of Washington, D. C., presented a paper on this subject, in which he described a case of gradual but fatal internal hemorrhage, in which the correct diagnosis had been set aside in the belief that such a condition could not exist with a steadily rising temperature. The autopsy showed the abdominal cavity full of blood, but no condition to explain the fever.

Dr. GRANDIN said that the pulse was a much better guide to internal hemorrhage than was the temperature. A very rapid fall of temperature, associated with a rapidly increasing pulse-rate, would be to him an indication of intra-abdominal hemorrhage.

Dr. J. M. BALDY said that the temperature was no guide, and that the pulse, though a better one, was often fallacious. Unless he could feel nearly certain about the existence of internal hemorrhage, he would not reopen the abdomen.

Dr. COE said that he could not subscribe to such a let-alone policy. The pulse was a fairly good guide to the existence of internal hemorrhage.

Dr. A. LAPHORN SMITH said that the best sign of hemorrhage at our disposal was a sudden increase in the pulse-rate.

Dr. BOISE, of Grand Rapids, said that where there was a gradual hemorrhage into the peritoneal cavity there was apt to be an elevation of the temperature, owing, probably, to the effort of the peritoneum to absorb the blood.

Dr. E. P. DAVIS said that another possible cause of the fever was the existence of a slight adhesive peritonitis.

Dr. FRY, in closing, said that in his case the hemorrhage lasted for 20 hours before it was enough to cause death.

An Electrode for Burning Ligatures.—Dr. CLEMENT CLEVELAND, of New York, said that as he almost invariably used ligatures around the uterine arteries in vaginal hysterectomy, he had conceived the idea of fastening in with these ligatures the tiny platinum loop of an electrode. Thirty-six hours after the operation, a current from a three-cell battery was turned into each of these electrodes, and the ligature thus burned off.

Surgical Injuries of the Ureter.—Dr. J. MONTGOMERY BALDY, of Philadelphia, in a paper on this subject, said that out of seven reported cases, uretero-cystostomy had been employed, but it had not been asserted that this operation was not possible in the seventh case. Uretero-ureteral anastomosis was only feasible in a small proportion of the cases, and apparently did not yield quite as good results as uretero-cystostomy.

Dr. BACHE EMMET, of New York, thought there was always great danger of infection of the kidney, particularly where cystitis was present. Whether the anastomosis were made at the bladder or along the line of the ureter, he would fear a backward pressure and a resulting hydronephrosis.

Dr. BYFORD was of the opinion that the attachment of the ureter to the bladder would be liable to interfere with the contraction of the bladder. If it could be shown that equally good results followed Dr. KELLY's method of lateral anastomosis, it would seem that this should be given the preference.

Horseflesh as Food.—Inquiry, by the Society for the Prevention of Cruelty to Animals in England, of the Home Secretary as to the final disposition of condemned horses elicited the information that they were being shipped to Holland. The presumption is that they are sold as food, and the belief is entertained that it is returned to England in the form of sausages or canned meat. It is said that Paris consumes more horseflesh than any other city in the world. An approximate estimate places the number of horses killed for consumption as food at about twenty-four thousand, and the gross weight of the same at over fifty thousand tons. The sale of horse meat is authorized in Paris, the market for that meat being apart from that occupied by the regular *viande de boucherie*. A decade hence and England may be in a position to furnish some interesting statistics on the consumption of horseflesh as food—indeed, if the modern *restaurateur* of our own country keeps equal pace with the times, our cousins may be far outrivaled, and horseflesh in America may not only be a marketable commodity, but a table *delicatsse*.

EDITORS' NOTES

The Cleveland Medical Society has been admitted to auxiliary membership and affiliated with the Ohio State Medical Society.

Reforming with a Vengeance.—Iowa has in contemplation the framing of a bill to require examinations every five years of medical men practicing within the State. It might be a good law for Congress to enact for national application.

Medical Association of Alabama.—At its recent meeting held in Montgomery the following officers were elected to serve during the ensuing year: President, Dr. BARCKLEY WALLACE TOOLE, of Talladega; secretary, Dr. JAMES REID JORDAN, of Montgomery; treasurer, Dr. WALTER CLARK JACKSON, of Montgomery.

Medical Men with mercantile ambitions are not permitted to practice pharmacy in the State of Missouri without an examination before the State Board of Pharmacy.

The Medical Society of North Carolina elected the following officers at its recent meeting, to serve during the present year: President, Dr. P. L. MURPHY, of Morganton; treasurer, Dr. M. P. PERRY, of Macon; secretary, Dr. R. D. JEWETT, of Wilmington.

Washington State Medical Society.—At its meeting held in Tacoma, May 19, the following officers were elected to serve during the ensuing year: President, Dr. R. L. THOMSON, of Spokane; secretary, Dr. J. M. SEMPLE, of Medical Lake. The next meeting of the society will be held in Spokane in May, 1897.

The Ohio State Medical Society elected the following officers at its recent meeting, held in Columbus, to serve during the ensuing year: President, Dr. F. C. LARIMORE, of Mount Vernon; vice-presidents, Drs. M. STAMM, of Fremont; C. F. CLARKE, of Columbus; JNO. S. BECK, of Dayton; and G. W. CRILE, of Cleveland; secretary, Dr. THOMAS HUBBARD, of Toledo; assistant secretary, Dr. H. M. W. MOORE, of Columbus; treasurer, Dr. JAMES A. DUNCAN, of Toledo. The next meeting of the society will be held in Cleveland on the third Wednesday in May, 1897.

The American Gynecological Society elected the following officers at its recent meeting held in New York: President, Dr. JAMES R. CHADWICK, of Boston; secretary, Dr. J. RIDDLE GOFFE, of New York; treasurer, Dr. J. M. BALDY, of Philadelphia; first vice-president, HENRY J. GARRIGUES, of New York; second vice-president, Dr. R. STANSBURY SUTTON, of Pittsburg; council, Dr. J. TABOR JOHNSON, of Washington, D. C.; Dr. ARTHUR JOHNSTONE, of Cincinnati, and Dr. CHARLES JEWETT, of Brooklyn, N. Y.

The American Pediatric Society appointed the following officers at its meeting held in Montreal, Canada, May 25, 26, and 27, to serve during the current year: President, SAMUEL S. ADAMS, M.D., of Washington, D. C.; first vice-president, W. S. CHRISTOPHER, M.D., of Chicago; second vice-president, C. P. PUTNAM, M.D., of Boston; secretary, FREDERICK A. PACKARD, M.D., of Philadelphia; treasurer, CHARLES W. TOWNSEND, M.D., of Boston; editor, FLOYD M. CRANDALL, M.D., of New York; new member of council, WILLIAM

OSLER, M.D., of Baltimore. The BULLETIN is glad to note that the secretary of last year was promoted to the presidency.

College Notes.—The Des Moines Medical College recently received a donation of \$20,000.

The faculty of the Philadelphia Polyclinic Hospital intends to increase the armamentarium of the hospital by the addition of one of the most perfect and best X-rays apparatus that can be constructed. Edison's fluoroscope will be used for visual diagnosis.

The medical department of the University of Virginia will hereafter have a three-years' curriculum.

Another New Specialty.—The following extract from the *Medical Record* vouches for the discovery of still another specialty—and probably the best as yet discovered:

THE NEW SPECIALTY—GENERAL MEDICINE.

To the Editor of the Medical Record.

SIR: The only department of medicine or surgery not practiced by any one in this city (so far as I know) as a pure specialty is general medicine. Nearly all of our physicians are specialists, i.e., laryngologists, neurologists, etc.

I have decided to devote myself exclusively to the practice of medicine, and shall be glad to attend any patients you may intrust to my care, upon such terms as we may agree to. I will take full charge of the patient, except for conditions which may require attention in your specialty, or if you so desire I will see that the patient is returned to you with any complaint that may best suit your specialty.

In regard to my fitness for this work, I would state that I have had a hospital service, which, as you know, a great many specialists have not.

G. R. A. BALL, M.D.

NEW YORK, May 18, 1896.

South Carolina Medical Association.—At the annual meeting, held in Spartanburgh, the following officers were elected to serve for the ensuing year: President, Dr. L. C. STEPHENS, of Blackville; secretary, Dr. W. P. PORCHER, of Charleston.

Medical Association of Montana.—The following named officers were elected at the last meeting of the association, to serve during the ensuing year: President, Dr. JAS. M. SLIGH, of Philipsburg; recording secretary, Dr. WM. O. RIDDELL, of Helena; corresponding secretary and historian, Dr. W. M. BULLARD, of Wickes; treasurer, Dr. GEO. W. KING, of Marysville.

New Hampshire Medical Society.—At its annual meeting, held in Concord, the following officers were elected to serve during the coming year: President, Dr. ABEL P. RICHARDSON, of Walpole; vice-president, Dr. M. C. LATHROP, of Dover; treasurer, Dr. M. H. FELT, of Hillsborough Bridge; secretary, Dr. G. P. CONN, of Concord; executive committee, Drs. CHARLES R. WALKER, of Concord; GEO. D. TOWNE, of Manchester; F. A. STILLINGS, of Concord; W. T. SMITH, of Hanover; F. E. KIT-TREDGE, of Nashua; A. C. HEFFENGER, of Portsmouth; and Ira J. PROUTY, of Keene; anniversary chairman, Dr. JAMES T. GREELEY, of Nashua; necrologist, Dr. JNO. J. BERRY, of Portsmouth.

The Texas State Medical Association elected the following officers at its last meeting, held in Fort Worth, to serve during the ensuing year: President, Dr. J. C. LOGGINS, of Ennis; first vice-president, Dr. A. N. DENTON, of Austin; second vice-president, Dr. J. S. LETCHER, of Dallas; third vice-president, Dr. DAVID CERNA, of Galveston; secretary, Dr. H. A. WEST, of Galveston; treasurer, Dr. J. LAVENDER, of Houston; orator, Dr. J. W. McREYNOLDS, of Dallas. The next meeting of the

association will take place in Paris, Tex., on the fourth Tuesday in April, 1897.

American Laryngological Association.—The following-named officers were elected at the recent meeting of the association, held in Pittsburg, to serve during the ensuing year: President, Dr. CHARLES H. KNIGHT, of New York; first vice-president, Dr. T. M. MURRAY, of Washington, D. C.; second vice-president, Dr. D. N. RANKIN, of Allegheny, Pa.; secretary and treasurer, Dr. H. L. SWAIN, of New Haven, Conn.; librarian, Dr. J. H. BRYAN, of Washington, D. C.; member of council, Dr. W. H. DALY, of Pittsburg, Pa.

American Medical Association.—At its recent meeting, held in Atlanta, Ga., the following officers were elected to serve during the ensuing year: President, Dr. NICHOLAS SENN, of Chicago; permanent secretary, Dr. WM. B. ATKINSON, of Philadelphia. The next meeting of the association will be held in Philadelphia the first Tuesday in June, 1897.

The State Medical Society of Pennsylvania elected the following officers at its recent meeting, held in Harrisburg, to serve during the coming year: President, Dr. E. E. MONTGOMERY, of Philadelphia; secretary, Dr. WILLIAM B. ATKINSON, of Philadelphia. The next meeting of the society will be held in Pittsburg on the third Tuesday in May, 1897.

Meetings for the Coming Fortnight.—Minnesota State Medical Society, at Minneapolis, Minn., June 17. I. DONNELLY, M.D., secretary, St. Paul, Minn.

Army and Navy Medical Association, at Havana, Ill., June 16, 17, and 18. EDWARD P. BARTLETT, M.D., secretary, Springfield, Ill.

Colorado State Medical Society, at Denver, June 16, 17, and 18. E. R. AXTELL, M.D., secretary, Denver, Col.

Medical Society of New Jersey, at Asbury Park, June 23 and 24. WILLIAM PIERSON, M.D., secretary, Orange, N. J.

Report of the Hydriatric Department of the Riverside Baths.—During the past year, 325 patients have been referred to this department, consisting chiefly of patients where many other methods of treatment had been tested without avail. The affections treated ranged from epilepsy through lead-palsy, multiple sclerosis, peripheral neuritis, psoriasis, asthma, to hypochondriasis, and the results are stated to be 30 per cent. cured and 35 per cent. improved. The fact that 3278 separate treatments were administered to these cases testifies to the labor bestowed upon them by the attending staff as eloquently as the results achieved testify to the beneficence of the work to those unfortunates who would otherwise have despaired of regaining health and ability to support themselves and their families.

The Riverside Association is a chartered body composed of residents of the city of New York, associated for the purpose of assisting the poor to better conditions. It would appear as though the charitable objects for which it was organized are always kept in view, and that illegitimate charity—such as characterizes so many of the institutions in the city—is not for one moment countenanced.

Nursing Apparatus Exhibition.—An exhibition comprising the multiplicity of appliances which are nowadays employed in the nursing of the sick and injured, is to be held in London some time in June. It is being organized by the *Nursing Record*. The appliances employed in the general and the special

hospitals vary very considerably, and a large number of the nurses who concluded their training even three years ago must, to a considerable extent, be unacquainted with the many improvements which have since been effected, while they have probably never had any opportunity of seeing the methods employed in other institutions than the particular one in which they were trained. The exhibition, therefore, should prove to be very valuable to such women from an educational standpoint, and it will also doubtless be of interest to medical men as well.

Tearing Down Tenements in New York.—Newspapers in all parts of the country commend the action of the New York Board of Health in tearing down old tenements in the congested parts of the city.

Anti-antivivisection.—We print in full the resolutions adopted by the American Pediatric Society condemning the antivivisection bill before Congress:

WHEREAS, A bill is at present pending before the Congress of the United States entitled "An act to prevent cruelty to animals in the District of Columbia," which curtails experimentation upon animals, and would put a stop to medical research; and

WHEREAS, It is very probable that such legislation would influence greatly similar legislation in the various States, which would prevent the advancement of medical science and of medical education; and

WHEREAS, Such legislation would be very prejudicial and is not called for by any existing facts of cruel experiment, as the advocates of the bill themselves concede so far as the District of Columbia is concerned; be it

Resolved, That the American Pediatric Society, now in session at Montreal, presents these resolutions as a memorial to Congress, and enters a protest against the enactment of such legislation, declaring it to be needless and injurious.

Resolved further, That a copy of these resolutions be sent to the *Journal of the American Medical Association* and to the other weekly journals.

Carried.

SAMUEL S. ADAMS, M.D.,
Secretary.

The following members of the American Pediatric Society indorsed the preceding memorial to the Congress of the United States:

J. C. WILSON, M.D., vice-president, Philadelphia, Pa.; SAMUEL S. ADAMS, M.D., secretary, Washington, D. C.; ROWLAND G. FREEMAN, M.D., New York; FREDERICK A. PACKARD, M.D., Philadelphia, Pa.; WM. OSLER, M.D., Baltimore; A. H. WENTWORTH, M.D., Boston; W. P. NORTHRUP, M.D., New York; J. P. CROZER GRIFFITH, M.D., Philadelphia, Pa.; L. EMMETT HOLT, M.D., New York; CHARLES W. TOWNSEND, M.D., Boston; J. HENRY FRUITNIGHT, M.D., New York; GEO. N. ACKER, M.D., Washington, D. C.; C. G. JENNINGS, M.D., Detroit, Mich.; AUGUSTUS CAILLÉ, M.D., New York; A. D. BLACKADER, M.D., Montreal; J. SEIBERT, M.D., New York; CHARLES P. PUTNAM, M.D., Boston; FLOYD M. CRANDALL, M.D., New York; T. M. ROTCH, M.D., Boston; W. S. CHRISTOPHER, M.D., Chicago; W. D. BOOKER, M.D., Baltimore; DILLON BROWN, M.D., New York; JOHN DORNING, M.D., New York.

A Woman Leads Reform in Kansas.—Dr. MABEL SPENCER, county physician at Kansas City, Kan., is at the head of a movement looking toward the improvement of the Kansas medical laws. She says there must be a specific law covering the matriculation of the students to the medical colleges, and an examination of all applicants for license to practice medicine in the State, or they should be required to present to the Secretary of the State Board of Health a diploma from some reputable college, or a State or county examining board duly authorized

by law to issue the same. Under the general law of 1870, now in force, it requires but two full courses in some reputable colleges, or State certificate of qualification from some State, or 10 successive years of practice next preceding the passage of the act under which the State is now operating. There should be, she claims, three or four full courses, as there are now colleges in the country that will graduate any person under three full courses. Physicians should be compelled to report all births and deaths, or data regarding contagious or infectious diseases, promptly. Physicians and midwives should register their State certificates with the County Clerk not later than one month after locating in any town or place within the county. She also wants a law to provide for a convention of the county health officers to confer with the State Board of Health. These changes, she believes, will raise the standard of the practitioners and inspire confidence, and, more than this, it would help to shut out the traveling venders of nostrums, who go about with patent "gun-shot" remedies, which are peddled by men who are often without principle or character.

The Cemetery and the Water Supply ; Disease in the Grave.—Such are the headings of the annexed extracts from the *Lancet* and the *British Medical Journal*. Although the BULLETIN has repeatedly discussed both questions, they are of such importance to the present and all the more to future generations that contributions to the topics are not alone timely, but should be carefully weighed by all scientists. The *British Medical Journal* publishes the following letter from a correspondent in reference to the question of disease in the grave :

While all are agreed as to the danger, or at least the expediency, of intramural interment, of burial in vaults, and in the "dead" earth of city churchyards, the apologists of earth burial insist on the destruction of pathogenic by saprophytic microbes and the energy of the nitrifying process in suitable soils, and the advocates of cremation believe in the greater vitality of some disease germs and the real risk of the pollution of the ground water and wells, though this danger is minimized by the general substitution of public water supplies for private wells in all towns or large villages. Even HOFFMANN, the official defender in Germany of the existing practice, admits the persistence and diffusion of the bacteria of typhoid and cholera, and recently Professor ALBU, in a prize essay on cremation, has collected a large mass of well-authenticated instances of this. It is true that SKRZECZKA, WERNICKE, and PISTOR have endeavored to account for the greater mortality from typhoid fever and cholera pointed out by ZUELZER among the population residing in the immediate vicinity of the Berlin cemeteries on such hypotheses as lowness of site, movements of ground water, density of population, which ALBU deems insufficient; but the pollution of the ground water and wells in Vienna from 1875 until the provision of a pure public supply from distant highlands, by percolation from the cemeteries which encircle the city on rising ground became more and more pronounced, the water at length being turbid and yellow, charged with nitrites, and positively offensive from hydrogen and ammonium sulphides. Dr. LEVISON, in a report published in 1886 on the graveyards of Denmark, stated that Copenhagen and 20 of the 68 towns in the kingdom had suffered from this cause, and that 78 epidemics of typhoid were distinctly traceable to the proximity of graveyards. Dr. LAMM says that around the three cemeteries near St. Petersburg the annual mortality had for some years been from 75 to 85 per 1000, while that of other and even poorer quarters of the city was only 25. To Dr. DOENITZ, who for many years held a professorship of medicine at Tokio, we are indebted for one of the most striking instances of the persistence of infection in the earth. During the epidemic of 1877 a detachment of troops sent to quell a disturbance in a remote district had suffered very heavily from cholera, but from that year until 1879 the disease was entirely absent from the whole empire. The authorities then determined on removing the bodies of the soldiers to a public cemetery, employing a number of laborers for the purpose. While so engaged cholera suddenly broke out among them in the absence of any other possible means of infection, and the same occurred at an-

other place under similar circumstances, these two localities forming the centers of origin of the epidemic of that year. The outbreak of cholera at Jativa in 1890, when Spain and Europe generally had been free for five years, though not connected with cadaveric infection, having been ascribed with every appearance of probability to the excavation of soil saturated with the evacuations of sufferers in the preceding epidemic, is analogous; while Sir JOSEPH LISTER's case of the hospital haunted with gangrene which baffled all efforts at its suppression until the bodies in an adjacent churchyard had been exhumed and burnt, and Mr. WHEELHOUSE's, of the Yorkshire village, where scarlatina of the most virulent type reappeared after the lapse of 30 years, while the remains of the victims of the fever in the preceding generation were being exhumed for the purpose of adding part of the closed churchyard to the parsonage garden, with like instances of the resuscitation of yellow fever and the plague, suffice to prove that if there have been some exaggeration, there is nothing incredible or even improbable in the most ghastly stories of the plague in medieval times, and, indeed, until the close of the seventeenth century.

The *Lancet* comments as follows editorially in regard to the question of the cemetery and the water supply :

Petrifying springs, the waters of which are so highly charged with lime salts or silicates as to infiltrate and encrust objects suspended therein for some time, are known in most countries, but their relation to the question of earth burial has, we believe, never presented itself until this year. We learn, however, from a German paper that excavations, made with the view of ascertaining whether a portion of the churchyard at Löbau laid out in 1870 was ready for renewed interments, revealed the fact that the coffins were intact and completely petrified. On being broken open they were found to be full of water, and the corpses were sodden but hardened, though they had undergone a certain amount of putrefaction, pungent gases escaping as the coffins were opened. The surface soil was a heavy, impervious clay, beneath which was a water-bearing zone in which the bodies lay. In this instance the water affected them, but had it been of an ordinary character they might have dangerously affected it, the exclusion of air and the absence from the "dead" clay of the bacteria of nitrification having prevented any decomposition in the strict sense as distinguished from putrefaction. Thus, when part of the churchyard of St. Andrew's, Holborn, was excavated for the construction of the viaduct the bodies were found "sandwiched," to use the apt expression of Dr. S. GIBBON, the medical officer of health, between the boards of the coffins, crushed by the superincumbent weight of clay; but from the "deadness" of wood and clay, decomposition and disintegration had been very slow, and there was but little difference between the state of preservation of those interred 200 years ago and of those buried 20 years previously, when the graveyard was closed. Under such circumstances—that is, in non-nitrifying and therefore unsuitable soils—the pollution of the ground-water is inevitable, and though the danger to the public health is minimized by the provision of public water-supplies from distant sources, it is a serious matter when the population depends on private wells. Thus at Vienna, previously to the inauguration of a public supply from the highlands, the effects of the pollution of the ground-water gravitating from the cemeteries encircling the city on higher elevations were unmistakable. The water in the town wells became progressively more and more contaminated, until it was turbid, yellow, charged with nitrites, and finally redolent of sulphureted hydrogen and ammonium sulphide—in fact, absolutely unfit for any use. Yet clay lands, possibly from their lower price, seem to be generally chosen for cemeteries; all those around London with very few exceptions, being of this description, though in some places good gravelly sites might have been found within a mile of those unfortunately selected. At Finchley the soil, though not gravel, appears likely to possess active nitrifying properties, being of a soft, friable, loamy character.

Army Items.—Leave of absence for four months, on surgeon's certificate of disability, was granted 1st Lieutenant BENJAMIN BROOKE, assistant surgeon.

The order assigning Captain ASHTON B. HEYL, assistant surgeon, to duty at Fort Canby, Washington, has been revoked; he has been relieved from duty at Fort Thomas, Kentucky, and ordered to Fort Riley, Kansas, for duty, relieving Captain THOMAS V. RAYMOND, assistant surgeon. Captain

RAYMOND, on being relieved, was ordered to Fort Canby, Washington, for duty.

Captain LOUIS A. LA GARDE, assistant surgeon U. S. Army, was granted leave of absence for a month.

Navy Items.—Surgeon L. L. VON WEDEKIND was ordered to the Naval Academy. Surgeon C. A. SIEGFRIED was detached from the *Columbia* and ordered to the *Massachusetts*. Surgeon B. Z. DERR was detached from the *Raleigh* and ordered to the *Columbia*. Surgeon H. G. BEYER was detached from the Naval Academy, June 5, and ordered to the *Raleigh*, June 6. P. A. Surgeon M. S. GUEST was detached from the *Constellation*, June 8, and ordered to the *Massachusetts*, June 10.

Louisiana State Medical Society.—At its last meeting, held in New Orleans in May, the following officers were elected to serve for the ensuing year: President, Dr. P. E. ARCHINARD, of New Orleans; vice-presidents, Drs. J. N. THOMAS, of Port Eads; H. S. COCRAN, of New Orleans; F. R. TOLSON, of Lafayette; R. A. GRAY, of Shreveport; D. K. SARTOR, of Alto; E. L. IRWIN, of Clinton; recording secretary, Dr. P. B. McCUTCHON, of New Orleans; corresponding secretary, Dr. A. G. FRIEDRICH, of New Orleans; treasurer and librarian, Dr. A. J. BLOCH, of New Orleans; memorial orator, Dr. F. W. PARHAM, of New Orleans. The next meeting of the society will take place the first Tuesday in May, 1897.

Personal.—Dr. CHARLES FREDERICK HERMAN WILGOHS, of Doylestown, O., 12 miles from Akron, believes himself to be the oldest physician in active practice in the United States. He is said to have the appearance of a man of 60 years, reads the newspapers without the aid of glasses, eats three hearty meals a day, smokes habitually, and is very temperate, and he attributes his longevity to heredity. He says in 300 years the male members in his family who died natural deaths all lived to be 100 years or more. His grandfather cradled wheat two days in succession when he was 106 years old, and died of overheating himself.

Dr. O. L. DALES has been appointed health officer at Grand Rapids, Mich.

Obituary.—Dr. E. S. COAN, of Auburn, Me., in that city on May 29, aged 53 years. He attended the Maine Medical School, and was graduated therefrom in 1870.—Dr. JOHN I. BRINKERHOFF, in Auburn, N. Y., on May 27. He was a member of the Cayuga County Medical Society at his death.—Dr. J. G. JOHNSON, in Lowndesville, S. C., on May 25.—Dr. J. T. PEARMAN, at his home, 409 West University avenue, Champaign, Ill., on May 26, aged 67 years. He was graduated from Rush Medical College, Chicago, in 1858.—Dr. O. E. ROESCH, of Fort Ogden, Fla., on the 27th ult. He was graduated from St. Louis Medical College with the class of 1864.—Dr. JOSEPH H. LEDLIE at Pittsfield, Ill., on May 24, aged 63 years. He was graduated from the Royal College of Surgeons, Ireland, in 1854, and was a member of the Adams County Medical Society and the American Medical Association at his death.—Dr. D. W. CARLEY, at Boscobel, Wis., on May 26, aged 73. He was graduated from Rush Medical College with the class of '56.—Dr. GEORGE E. BENSON, in Hudson, N. Y., on June 1, aged 68 years. He was graduated from the Albany Medical College.—Dr. JOHN H. O'REILLY, in Morristown, N. J., on June 1, aged 45 years.—Dr. A. C. BURNHAM, in Concord, N. H., on June 3, aged 34 years.—Dr. W. S. ROBINSON, in Taunton, Mass., on June 3.—Dr. P. S. REYNOLDS,

in Queen Anne Station, Md., on June 1, aged 79 years.—Dr. P. B. BREINIG, in West Bethlehem, Pa., on June 1, aged 67 years. He was the founder of the Lehigh Valley Medical Association, and at one time vice-president of the National Medical Society; also vice-president of the State Medical Society.—Dr. H. V. M. MILLER, in Atlanta, Ga., on May 31, aged 82 years. He was graduated from the Medical College of South Carolina at the age of 21; in 1867 he was called to the chair at the Atlanta Medical College, and at the time of his death he was dean of the faculty of that college.

PUBLISHERS' DEPARTMENT

HUNYADI JANOS

This natural water is largely prescribed by physicians everywhere, owing to its richness in aperient salts. It is a trustworthy agent, and is more agreeable to the taste than most of the other saline waters. It is useful in cases of sluggish action of the intestines, when taken fasting about one hour before breakfast, in relieving the incident depression. Its action being gentle and unaccompanied by inconvenience makes it a valuable household remedy.

PALATABLE CASTOR OIL

The following letter has been received from A. J. WHITE, of 30 Reade street, New York:

To the Publishers of the A. M.-S. BULLETIN:

DEAR SIR—A paragraph is going the rounds of the medical journals, giving a formula for making palatable castor oil. This formula is patented, as per following list of patents: No. 410,940, dated September 10, 1889; No. 470,715, dated March 15, 1892; No. 470,714, dated March 15, 1892; No. 524,513, dated August 14, 1894; No. 524,514, dated August 14, 1894;—and if druggists are induced to prepare this article themselves, it will lead to a multitude of lawsuits like those instituted in the "Drive Well" case.

Yours very truly, A. J. WHITE.

GLYCOZONE IN GASTRITIS

In a contribution by Dr. GEO. A. CURRIDEN, of Chambersburg, Pa., recently published, he sets forth his experience with chronic gastritis of long standing accompanied by headache in a patient who had been under his care for a number of years and to whom he had been unsuccessful in affording much relief by different treatments. He stated in the article that while his previous treatments had been varied and on many different plans, they had not been successful in preventing a recurrence of the malady from time to time. In May, 1895, he prescribed Marchand's Glycozone in teaspoonful doses well diluted t. i. d., using it experimentally. The patient, a lady aged 55, speedily commenced to improve in general health and appetite without the previous distressing symptoms following, and in every way showed a decided improvement which lasted during the continuation of the Glycozone treatment for three months. The conclusion Dr. CURRIDEN arrives at in the case quoted is that the headache is sympathetic, that the stomach becomes acutely inflamed by its inability to naturally and properly perform its functions and responds to the call of nature to unload itself and thus secure for a time rest, that the use of Glycozone has corrected the existing gastritis and by so doing has removed the primary cause of these many years of suffering.

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SMEGMA BACILLI AND TUBERCLE BACILLI

A MOST valuable paper upon the differential diagnosis of smegma and tubercle bacilli has recently been published by Dr. GRETHE in the *Fortschritte der Medicin* for May 1. The great practical value of this subject from a clinical standpoint justifies an extended review of the author's remarks.

A short time ago the urine of a woman was sent to the Halle Pathological Institute to be examined for tubercle bacilli. The presence of tubercle bacilli had already been reported. But since there was nothing to support the suspicion of tuberculosis, and as the result, in case it was confirmed, would give rise to no little anxiety, the attending physician desired a confirmatory examination.

The sediment of the very cloudy urine was stained in the ordinary way with hot carbol-fuchsin, and decolorized and counter-stained according to FRÄNKEL in a mixture of nitric acid, alcohol, and methylene-blue. In the specimens thus prepared there were found, in addition to numerous other blue-stained bacteria, scattered red-stained rods, chiefly in groups adhering to an epithelial cell. The question now arose, Were these bacilli really those of tuberculosis, or were they, as their location seemed to indicate, only smegma bacilli which had retained the fuchsin stain after use of the above mentioned staining method? In the case under consideration the presence of tubercle bacilli could be excluded by negative inoculation experiments upon guinea-pigs, a result which, according to the report of the attending physician, was the more probable. These bacilli, then, were solely those of smegma.

Animal experimentation, however, is not applica-

ble by the practitioner in the determination of such a question. It was therefore desirable to learn whether in some other way, by variation in staining properties, a differential diagnosis, between smegma bacilli and tubercle bacilli could be made, so that every practitioner could without difficulty decide which variety of bacillus he had to deal with in a given case.

Regarding the behavior of tubercle bacilli toward the staining methods recommended for the demonstration of the smegma bacillus, it has long been known that the oldest of these, LUSTGARTEN'S syphilis-bacillus method, also stains the tubercle bacillus. The author was able to determine that KOCH'S tubercle bacillus can very readily be stained by this method, a result which would naturally be expected when it is remembered how resistant tubercle bacilli stained for 24 hours with anilin-gentian are to decolorizing agents.

Giacomi's method of staining the smegma bacillus gave different results. Since in this method the staining is carried out with simple fuchsin solution heated to steaming, one might hope that the tubercle bacilli had not been tinged during the few minutes consumed in staining, and therefore could not be found after decolorization of the preparation with liquor ferri sesquichlorati. In fact, some preparations made from material containing numerous tubercle bacilli showed none after decolorization, although the control preparations contained them in large numbers. On the other hand, in the majority of instances, preparations stained by Giacomi's method showed tubercle bacilli stained sufficiently red to give rise to confusion with smegma bacilli. Indeed, it was often noted that the smegma bacilli were not stained much darker than the tubercle

bacilli. Hence, this method is not adapted for differential examinations of the two varieties of bacilli named.

It was next sought to determine to what degree the smegma bacilli could be demonstrated by the well-known methods employed for staining tubercle bacilli. As has already been seen, the smegma bacilli can easily be stained red upon a blue background when the preparation is treated with heated carbol-fuchsin solution and subsequently decolorized for some time with B. Fränkel's solution. GRETHE found that the action for a half-hour of Frankel's solution had scarcely any effect upon the smegma bacillus; even after one and three-quarters hours' action a few red bacilli could still be observed. If decolorization was carried out with nitric acid and alcohol separately, the following was observed: Preparations stained with boiling carbol-fuchsin and subjected to the action of 20-per-cent. nitric acid for two minutes still showed the presence of well-stained smegma bacilli when examined in water. When the same preparations, which contained many bacilli, were treated with 70-per-cent. alcohol, but few straggling, feebly stained red bacilli were visible after five minutes. Other things being equal, the tubercle bacilli did not suffer by 10 minutes' action of the alcohol. From this GRETHE concludes that when suspected preparations which have been stained with carbol-fuchsin and decolorized for two minutes in 20-per-cent. nitric acid are washed in alcohol for 10 minutes, bacilli which still remain red may, with some certainty, be looked upon as tubercle bacilli; whereas less than five minutes' action of alcohol renders the result doubtful, even though many smegma bacilli have lost their color. This observation proves the correctness of the statements of former investigators, namely, that the smegma bacillus is quite resistant to the action of acids, but not to alcohol. This is not alone true of the mineral acids, but also of the organic, such as acetic acid, the use of which in the differentiation of the two varieties of bacilli was recommended by ALVAREZ and TAVALL. They state that after staining with fuchsin or methyl-violet and two minutes' action of glacial acetic acid, the smegma (and syphilis) bacilli are decolorized, while the tubercle bacillus is not affected. GRETHE does not believe this method worthy of confidence, for the reasons already stated. Furthermore, staining according to EHRlich—with methyl-violet, decolorization with nitric acid, and subsequent washing with alcohol—is also unreliable.

Because of the decided decolorizing action exerted

by alcohol upon the smegma bacillus, to avoid mistaking the latter for tubercle bacilli he advocates the use of concentrated alcoholic staining solutions in place of the strong acids, as is done in Weichselbaum's tubercle-bacillus method. WEICHSELBAUM stains in the ordinary way with carbol-fuchsin, and, after washing, contrasts stains with concentrated alcoholic methylene blue. In this manner *all* bacilli, except the tubercle bacillus, are restained, *i.e.*, take the blue. Czapslewski's method with fluorescein-methylene-blue is equally as reliable, but more complicated. Concentrated watery solutions will not restrain smegma bacilli; alcoholic solutions are necessary to accomplish this end.

ORIGINAL CONTRIBUTIONS

ANCIENT MEDICINE AND SURGERY AS COMPARED WITH THAT OF THE PRESENT DAY*

By A. PALMER DUDLEY, M.D., of New York

GENTLEMEN: By your kind indulgence it is my privilege this day to greet you, under what are to me trying and at the same time, if I may be permitted to use the expression, most gratifying circumstances, for it allows me the privilege, not only of expressing to you my most sincere thanks for the honor you have conferred upon me, but also my gratitude to those among you who were my teachers at the beginning of my professional career, for the patient and kindly manner in which you labored to graft into my mind those principles of medicine and surgery which have since been my sheet-anchor in times of trouble, and to which to-day with most grateful acknowledgment to you, I attribute my success in life. It is no idle boast on my part when I say that in my wanderings abroad, in my pursuits of medical knowledge at home, and in my efforts to impart what knowledge I could to those who have entered the profession since I, it has not yet been my privilege to see the place that I have more affection for than the old Portland School for Medical Instruction, or to meet men who were the peers of my teachers at that time, in their ability to inculcate into the minds of the student of medicine those principles, not only of medicine, but of all other conditions pertaining to life, which, if he chose to make good use of, would carry him to the front ranks of his profession. Some of them are sleeping their long sleep, but with me—as I hope it is with you all—their memory and their teachings are as fresh as though it were but yesterday—GREEN, the master in surgery, than whom none could excel; TEWKSBURY, the Jack Blunt of the faculty, who, though he could swear with every breath, was still a noble man and teacher; SMALL, the sagacious obstetrician, who could conceal the forceps in his sleeves, and, presto! change! call

*Read before the Maine Medical Association, June 4, 1896.

them forth from their concealment, and relieve the suffering mother without her knowledge of their presence. But it is not my purpose to dwell upon the inevitable that is always attended with sadness—except in so far as it will serve my purpose to point out the fact that it is a great pleasure to return, after 15 years' absence, to the scenes of my early struggles upon such a mission as you have honored me with. Not one among your number has less right to expect so great a distinction, not one could have been more surprised by its reception, and I can truthfully say that I have been tempted many times to ask your committee to relieve me from my promise, when the necessity was put upon me of selecting some subject upon which I could ask the attention of this association; and the task became none the less difficult when I made myself familiar with the writings of my distinguished predecessors, and especially when I contrast the address I should like to present, with that which it is within my limited capacity to offer. Therefore, as I proceed, if what I have to say seems to you prosy and illy chosen, I crave your indulgence for a failing with which nature endowed me most plentifully, and that is ignorance. I would do better if I could. Mankind is slow to learn—there is a limit to the knowledge attainable by an individual, and none may hope for the possession of absolute knowledge in any department of human research. If, by diligent and earnest efforts, one should approach nearer the truth than some of those who have journeyed before him, he should justly feel content. If GOETHE could say in his old age, "I have been 50 years learning to read, and I have not learned yet," or NEWTON, after all his achievements in knowledge, could exclaim, "I have only picked up a few pebbles on the beach of the infinite ocean of truth," he who shall in the future discern the truth in the complex phenomena and facts pertaining to medicine must be no ignorant, prejudiced person, biased by preconceived opinions. He must be richly endowed, and largely stored with the wisdom of the past, and keep abreast with the rapidly accumulating knowledge of the present. He must be capable of patient, logical induction, and quick to discover the relations that exist between seemingly unlike conditions. It is fair to believe that not many minds are equal to attaining this standard of qualification, and as I have not, by any process of reasoning of which I am capable, the slightest claim to any such endowment or capacity, I am therefore content, during the time allotted me, to attempt to interest you with a few comparisons in our profession.

It has been said that among the noble professions, that of the ministry takes first rank, with the law a good second, and medicine third. It is only an egotist or one unfamiliar with the early history of the Garden of Eden, as taught by the Scriptures, that would still have any desire, or be so unjust as, to assign our noble profession to a position inferior to that of any other—for it is a well-known fact that

the two most popular persons with each and every member of the human race, as they make their *début* into this cold world, are the doctor and the caterer. Only an exceptional few would admit the preacher to a rank with these; and as for the lawyer, could he have been present, his vocation would have been disastrous to the human race, as his only business would have been that of condemning his ancestors to separation for their first sin. So very early in the world's history necessity—that fertile mother of invention, whose varied offspring have so enriched the world—brought forth the science of medicine. It would seem that Mother Eve (even though she first acted as caterer) was largely instrumental in this, and must have played the dual role of physician, for although we do not know how soon she began to treat the bruises of her boys—or search for remedies to ease their aches and pains—we have been informed that she tempted Adam to eat the apple—and, like father like son. We know that the green apple has ever been a source of worry to the mother. It is reasonable to suppose that all these experiences had a place in their lives, and we are led to believe that with the first pains of childbirth there began to develop in the human brain those ideas of relief and prevention which have since, by slow and patient study and experience, developed into our present modern profession. There has been no progress in the various walks of life that can compare with the gigantic strides in the art of modern medicine and surgery—except it be, possibly, the modern harnessing of electricity to the uses of the human race, and in that our profession claims its share.

How has this been brought about—has it been accomplished during the last decade, or even the last century? No; it is the result of patient toil and labor for nearly nineteen full centuries, and not by one nation only, but by the combined efforts of all the nations of this globe—working with the one object in view, that of prolonging life and relieving the sufferings of their fellow-men. It is for the purpose of refreshing our memory and making us conscious of the results of this patient and noble labor, that I have chosen as my subject for this evening "Ancient Medicine and Surgery as compared with that of the Present Day." And when I say ancient I do not mean that as taught a century or two centuries ago, but that which may be found recorded in the Scriptures. The Bible, which is really an epitome of ancient Hebrew literature, touches life in every phase; although it dwells chiefly upon the religious history of our earliest ancestors it treats upon the political doings of the times and also notes the progress of science and art. The supreme purpose, however, is to chronicle the religious experiences of a nation in its earliest development. It is, nevertheless, no foe to medicine; throughout the whole book the science of medicine is never spoken of in other than words of praise. On the contrary there is no calling in life to which so much allusion is made. In the New Testament, Luke, who was a physician as well

as a historian, makes record of some noted cases. He tells of the healing of Malchus' ear,¹ and in the tale of the good Samaritan² speaks of the use of wines and oils as potent factors in the cure. The wrongdoings of the people are constantly likened to leprosy, lameness, and other diseases. The Greek word from which is derived our word "therapeutics" means also to worship³ as well as heal,⁴ and the terms used to indicate bodily weaknesses and spiritual infirmities are the same⁵; while the lexicon will reveal numerous uses of words to describe both physical and ethical diseases⁶; and everywhere throughout the Bible the honorable profession of the science of medicine is made subject of praise.

Sources of Medical Knowledge.—Among the Hebrews medical knowledge was partly acquired and partly spontaneous, but the latter was never a science with them. Organized knowledge of any kind is not recorded as among the accomplishments of ABRAHAM'S descendants before the Christian era. Before the departure of the chosen people from their bondage in Egypt, but little is known of their knowledge of medicine. The births and deaths of men were recorded, occasional cases of parturition are described somewhat at length—as, for instance, the birth of ESAU and JACOB⁷ under peculiar circumstances, also that of poor RACHEL⁸ who gave up her life at the birth of BENONI, the son of her sorrow—while queer conditions of presentation are chronicled at the birth of the sons of TAMAR,⁹ and from which the first-born derived his name. The Egyptians were chief among the nations from which the Israelites acquired their knowledge, as the Egyptian, ÆSCULAPIUS, is by many supposed to have been the author of the oldest Egyptian medical works, whose contents were first engraved upon pillars of stone. Subsequently they were collected and formed a part of the so-called "Hermetic Books," the remains of which are preserved to us in the two papyri of Leipzig and Berlin. The Leipzig papyrus was committed to writing in the 16th century B. C.

While they seemed in no haste to explore the unknown by experiment, they absorbed the results of others' industry as they do to-day, with eagerness—but they were students of good teachers, for the Egyptians were amongst the most enlightened people of the world, and even at that day, 17 centuries before the birth of CHRIST, their knowledge of medicine was sufficient to warrant them in devoting their time to specialties. As HERODOTUS says: "The practice of medicine was divided among them as follows: each physician was for one kind of sickness, and no more; and all places are crowded with physicians, for there are physicians for the eyes, for the

head, the stomach, internal diseases, and the teeth." The skill of these physicians was known throughout the world; they were sent to CYRUS from the land of the Nile, and were constantly in attendance at the court of DARIUS. JEREMIAH alludes to the many medicines of Egypt, and BAAS says: "They were well versed in the use of drugs and had numerous formulas for their preparation. Prominent remedies were opium, strychnus, squill, and vegetable remedies in general."

The Egyptians took a purgative and an emetic regularly three times a month (on the principle that all diseases arose from food and were to be prevented in this way). They cupped by means of horns sawed off near the point. They practiced lithotomy with dexterity; their method was preserved as a secret. They also performed amputation, as pictures found in Thebes and Denderah testify. They were especially skillful in ophthalmic surgery, and it is highly probable that they even operated for cataract, while their skill in embalming their dead is evidenced by the many mummies to be found in Egypt to-day, which have stood the test of time, and remind us of a lost art (that of embalming) of which we would gladly be the possessors.¹⁰

The teeth of some of these mummies bear witness to a skill in dentistry which would make the heart of a modern worker at the art leap with joy could he equal or excel it. The Egyptians did not shrink from human dissection as the Greeks did; and ATHOTIS, son of King MENES (lived, according to BOLKH, B.C. 702, according to SMITH, B.C. 415), was a physician and wrote upon anatomy.

Among such people the descendants of ABRAHAM lived for four and a half centuries. MOSES, who was destined to lead this people out of the wilderness, was learned in all the wisdom of the Egyptians, and history bears witness to his having made good use of it in after-years. But it remained for that same cultured race, who conquered the world with its skill in arts, to give to the profession of medicine the dignity of a science. It is said (BINNEY)¹¹ that during what is known as the inter-Biblical period, that time between the ending of the Old Testament writings and the beginning of the New Testament history, the Hebrews imbibed so much of the teachings of the Greek schools that the practice of medicine in Palestine in the first years of the Christian era was essentially the same as that of Greece. It is but fair to say, though, that not all the physicians of Palestine bore the best of reputations; neither were they noted for their skill, as is made evident in the case of the "woman who had an issue of blood for 12 years, which had spent all her living upon physicians, neither could be healed of any,"¹² but steadily grew worse. It is also noted that quackery was rife in those days, as at present; and King ASA¹³ was taken to task for consulting them; and

¹ Luke xxii, 51.

² Luke x, 33.

³ Acts xvii, 25.

⁴ Matt. iv, 23-24.

⁵ Matt. viii, 17; Luke v, 15, physical; Luke viii, 2, spiritual and 17 times in N. T.; Romans viii, 26; 1 Cor. xv, 43; Heb. iv, 15; Heb. v, 2.

⁶ Mal. iv, 2.

⁷ Gen. xxv, 24-26.

⁸ Gen. xxxv, 16-18.

⁹ Gen. xxxviii, 27-29.

¹⁰ "And they buried him in his own sepulchres, which he had made for himself in the city of David, and laid him in the bed which was filled with sweet odors and divers kinds of spices prepared by the apothecaries' art; and they made a very great burning for him." 2 Chron. xvi, 14.

¹¹ BINNEY: *Transactions of N. Y. State Medical Association*, Mar., 1891.

¹² Luke, viii, 43; Mark v, 26.

¹³ 2 Chron. xvi, 12.

also JOB¹⁴ showed his disrespect for his physicians by calling them liars, and considering them of no value.

We find recorded in the Talmud this singular treatment for stone in the bladder: "Catch a louse from a man, and another from a woman; fix the one upon the breast of the woman and the other upon the penis of the man; then let them urinate upon a blackberry bush, while somebody watches whether the stone escapes."

STEPHENS, of Athens, who flourished about 640 A. D. and was a disciple of THEOPHILUS, in his treatise "On the Signs of Virginity," mentions the Egyptian superstition that a reliable sign of virginity may be found in the fact that peas upon which a virgin had urinated, germinate, while the contrary condition of sexual purity may be proven by the failure of the peas to sprout—apparently a very accommodating doctrine when we consider the generative power of peas.

This can be accounted for somewhat when we remember that for a time the priests and prophets were the recognized physicians of the Israelites. Some of their laws, however, regarding practice, if recognized to-day, would give some of our overworked practitioners rest and comfort, while it would bring disaster to others. Any Levite was forbidden to practice who was suffering from defective sight, and no one was allowed to examine a patient in the twilight, or on a cloudy day, while only women were allowed to preside in the lying-in chamber.

In one branch of our profession the Hebrews excelled, and that was hygiene¹⁵. It might be well if some of those now engaged in the Department of Public Health would study well the teachings of MOSES, whose laws have possibly not been improved upon in the nineteenth century. Did time allow, it would be entertaining to review the many rigid rules which it was the duty of the priests to enforce, with reference to the hygienic surroundings and the every-day acts of the people of Israel—indeed they should have been the most healthy and godlike people of the world. In fact, preventive medicine was their forte. In the other branches of the profession they were not so well qualified. Anatomy and pathology were practically prohibited studies with them; for their laws forbade them to touch a dead body under penalty of religious defilement. True pathological conditions of the body internally, of course, under such conditions could only be a matter of conjecture, forever concealed under a veil of mystery. Therefore, when the people were visited by an epidemic of any form of disease (which would to-day be readily understood and successfully combated), it was with them attributed either to our SAVIOUR or his worst enemy, and treated accordingly—with prayers or curses. They were not familiar with the tissues beneath the skin, except by an occasional glance, the result of accident or injuries in battle. So the scientific study

of internal diseases, both medical and surgical, remained dormant for many years, while all forms of external disease were well understood and properly classified, as can be readily verified by a perusal of the Old Testament. Their methods of prescribing naturally depended upon the location of the malady. If the trouble was within the range of vision, it was then considered to be a visitation from the Deity, and the treatment consisted of promises of divine prevention and aid, while with many superstition governed their actions; for we find in the fifth chapter of John the description of a pool called, in the Hebrew tongue "Bethesda," to which journeyed a great many invalids seeking relief, for it was supposed by them that an angel visited the place at certain seasons of the year and troubled the waters. Whosoever stepped in first after the angel, was made well. Not so, however, with diseases upon the external surfaces of the body, for very early in the history of the human race, as I have previously stated, man learned the value of simple remedies; and although their materia medica was indeed scanty, we find descriptions of many compounds of different herbs prescribed for the relief of suffering, while, as to-day, some were thought to be specifics. Anodynes were well understood, and administered to those who were to be put to death, to deaden their pain. This is considered by some writers to be the nearest indication of an anesthetic to be found mentioned in the Scriptures.

Of surgery the people of Biblical times knew but little. Only two surgical operations are mentioned in the Bible, and those were upon males. The one was that of circumcision¹⁶ and the other castration.¹⁷ For the former the instrument used was a sharp stone.¹⁸ Although such an instrument would not stand the test of competition with our present antiseptic clipping-machines, it nevertheless answered the purpose well, for circumcision was done wholesale, as is our present operation of spaying; and it would seem for mercenary purposes as well, for II. Samuel chronicles the fact that DAVID gave King SAUL 100 Philistines' foreskins as a dowry for his daughter MICHAL.¹⁹

In connection with the operation for castration, although no mention is made of the method employed in the Bible, we find in BAAS'S "History of Medicine" that castration was performed by crushing or pounding the testicles, and more rarely with the knife. It would seem that the operation was not looked upon favorably, while, in connection with it, the condition of hermaphroditism was well understood and not relished. Matthew 19 describes the condition, and, after stating that some eunuchs were so born, and some made by man, and others made themselves eunuchs for the Kingdom of Heaven's sake, says, "He that is able to receive it, let him receive it"—indicating that although the LORD did not seem to be displeased, he (MATTHEW) was contented

¹⁶ Gen. xvii, 10-23, 24-27, cxxi, 4; cxxxiv, 14-15; Ex. xii, 48.

¹⁷ Matt. xix, 12.

¹⁸ Ex. iv, 25; Jos. v, 2-9.

¹⁹ 1 Sam. xviii, 23-27; 2 Sam. iii, 14.

¹⁴ Job xlii, 4.

¹⁵ Lev. xiv, 34-57.

with his own condition, but perfectly willing that any man who desired the mutilation should have it.

There is one other surgical procedure mentioned in the Bible which we will not attempt to discuss here, fearing it might cause or give rise to a doubt as to the veracity of the originator—by the nineteenth-century production—of the one whom it was intended for—a new woman out of the rib of man.

There is still another branch of our profession, of which mention is made in the Bible, that I have, so far, only casually referred to. It is the only one in which (to make use of a phrase common among our speculative community) our sister-practitioners of those days could corner the profession. Only women were allowed to practice the art of obstetrics, and this was apparently the law and custom until the time of the departure of ABRAHAM's people from Egypt, although no mention is made of midwives in the Bible after that time. We know that they survived the passage of the Red Sea, that they flourished afterward, and have continued to, down through all the centuries to the present time. Although the title attached to their profession seems to have long since deserted them, they were then known as "navel cutters." I have been unable to find the recorded date of the first time when they allowed man to share in the honors of presiding in the lying-in chamber, but probably during the time of HIPPOCRATES, as obstetrical operations were then assigned to operative surgery. Since there was no such thing as ordinary male midwifery, the chief function of the latter seemed to be to direct the midwives how to act, but history records the fact that male practitioners were called in to difficult cases.

Of operative midwifery the natives of India in the 16th century B. C. displayed important knowledge. Besides cesarian section upon women who died in the latest period of pregnancy, cephalic and podalic version, embryotomy, embryulcia, craniotomy, etc., were performed.²⁰ The Indians also knew and practiced (though not very satisfactorily) the operative treatment of hare-lip,²⁰ rhinoplasty, herniotomy, laparotomy, the extirpation of tumors, removal of the ovaries in women in order to restrain their lust (an operation practiced also for the Lydian kings)—another "modern" (?) operation so early performed!

Such is a brief review of Biblical and ancient medicine and surgery as recorded before the Christian era. I have dwelt somewhat at length upon it in this paper, to show that it is not well nor just for every aspirant for honors in our profession, at the present day, to lay claim to originality with what he considers a new and brilliant idea, or invention, or operation, without being perfectly familiar with the works of those who have labored for the benefit of mankind long years before him, and also that I may be able to ask the question: Are we to-day, with all our brilliant accomplishments, our fine hospitals, and our arrangements for sanitary hygiene, and aseptic methods of treatment, both medicinally and surgically, suffi-

ciently far advanced after 19 centuries of study and experience, to warrant our boasting of our accomplishments and successes in the prolongation of human life, over those of our pre-Christian ancestors? I question if we are. Are we not to-day doing the same work that they did, only perhaps under better circumstances and surroundings? And, if we could have well-formulated statistics of the results of professional work and sagacity of those days—as we have in the present era—could we, taking into consideration the deaths that follow in the wake of the brilliant flash of the scalpel, show a better result in the prolongation of human life in actual number of years and days, than did they? If so, to what can we credit our successes; along what lines have the advances progressed; and to whom must we give the credit? Must we give it to the workers in the early Christian era, or to those of the Middle Ages, or to those within the memory of some of my hearers? I believe to the latter. And why? It would seem that history repeats itself, and that in medicine and surgery, as with other professions and arts, a meteor from the numerous stars flashes its rays far beyond those around it, illuminates the profession for a time, and then disappears, to be repeated again later on by some of those who become impressed by the brilliancy of the former. A perusal of the history of medicine and surgery from the time of the destruction of Pompeii, in the year 79 of the Christian era, to that of the fifteenth century, in which printing was invented and became an art, would seem to bear out this statement. With the destruction of Pompeii and the Alexandrian libraries (642 A. D.) a deathblow seems to have been administered to the literary vitality of our profession; for, although there are still extant the writings of a few brilliant minds, especially among the Greek school, their efforts seem not to be crowned with the brilliant successes that have attended the efforts of a few who will forever stand as monuments for the profession of the nineteenth century.

It would be impossible for me to call attention to the brilliant attainments of all those who have helped to bring modern medicine and surgery to its present standard of greatness. I will, therefore, confine myself to a few comparisons in one branch of the science in which, I believe, greater advance has taken place, more suffering has been relieved, and greater happiness given to the human race than in any other. I refer to the relief given to suffering woman as she passes through that portion of her life, more trying than any other, that from menstruation to the menopause. And *how*, may I ask again, has this been brought about? And to whom shall we give the credit?

In order that we may justly lay claim to this as having taken place during the last century, let us hastily review the history of this specialty up to the present time. We do not propose to lay claim to all that is good and great in this branch for ourselves, for that would be unjust, although it is

²⁰ BAA's "History of Medicine," by HENDERSON.

claimed by some that nothing in the science and art of gynecology that has not taken place during the last century is worth mentioning. He who pins his faith upon his own knowledge and ignores that of those who have worked in the same line before him, is resting his knowledge upon poor foundations, for he cannot afford to ignore the works of CELSUS, who wrote in the first century, and who gave the Greeks at that time credit for making a special study of the genito-urinary organs; or of GALEN and ARETOEUS, who wrote from the middle to the latter part of the second century. In GALEN's writings occurs the earliest allusion to the vaginal speculum; while the writings of ARETOEUS would indicate that he was equally familiar with its use; but we know that neither of these could have laid claim to being the first inventor of such an instrument, for the discoveries in the unearthing of Pompeii, given to us in a recent article in the *Scientific American* from the pen of our esteemed *confrère*, NICHOLAS SENN, of Chicago, setting forth in his characteristic style the things observed by him during a recent visit to that ancient city, go to show that long before the time of GALEN, or even the beginning of the Christian era, various instruments used in the treatment of diseases of women were invented and in common use, even in the time of HIPPOCRATES. And now, after an elapse of nearly nineteen centuries, they have been resurrected from the ruins of that ancient city in a good state of preservation, and, resting in the Naples Museum, give indisputable evidence of ingenuity and invention, as applied to the treatment of women in those days.

He should also give due credit to ÆTIUS, the Alexandrian student, who wrote in the sixth century upon diseases of women, and whose great work is still extant, although prepared 150 years prior to the destruction of the library, and who in his work devotes 37 chapters to the treatment of pregnancy, parturition, and nursing; 6 to various kinds of ulceration of the womb; 2 to displacements; 2 to obstructed and imperforate anus; 7 to growths occurring in the vagina and uterus; while special chapters are devoted to hysteria, fibrous tumors, pelvic abscess, hematoma, and also to different forms of inflammation of the uterus and its treatment.

Due credit must also be given to PAULUS, that famous man of the seventh century, who stood alone among the Byzantine physicians as a great surgeon and obstetrician, and whose works enjoyed the greatest esteem among the Arabians, were translated by them into their own language, and called the "Books of the Pleiades." From the distinction given to his works we must believe that he was one of the most capable, if not the most daring, operator among the Greeks.

Although little can be found worthy of note bearing directly upon the subject of gynecology, it is not to be supposed that good work was not done in the following centuries, for WRIGHT, in alluding to the loss of acquired knowledge of diseases of women and the disregarding of the teachings of the fa-

mous men of that time for upward of a thousand years, says "that it forms a somewhat curious and significant episode in professional history." He further says, "After the dispersion of the Alexandrian school the professors, though scattered, were received with honor by their Moslem captors, and what they could teach was eagerly sought for, except when it clashed with the precepts of the Mohammedan creed." And so the study of gynecology lay dormant for a long time, for it was against the Mohammedan creed that their women, even in their sufferings, should undergo personal examination except by one of their own sex. So, with the coming of the Arabian schools, although they comprised equally as industrious and accurate observers, owing to their creed there is only a very general mention of the diseases of women; although it is stated that ALBUCHASIS, one of the latest products of the Arabian school, treats at some length upon gynecology. He would seem to have been the first to recommend the use of pessaries.

Many other Arabian writers are worthy of note as authors upon general medical subjects; but it is not my purpose to continue to discuss their merits (for such men build monuments for themselves better than they knew) except in so far as it will enable me to point out to you who were the men whose brilliancy illuminated the paths of the physicians down through the dark ages to the time when the so-called modern gynecology sprang to the relief of suffering women, brushed away the barriers due to superstition and creed, and rested its banner of hope for future ages on the foundation firmly laid upon true scientific and experimental research coupled with mechanical skill and individual dexterity. It would simply be folly to suppose that there were not thousands of other brilliant minds who, during this time, worked well in the field of literature and obtained much in literary accomplishments, and skillful fingers whose dexterity impressed the age in which they lived; but, as I stated in the beginning of this address, it could only be in the province of a few to so outstrip their fellow-men that their efforts would make a lasting impression upon the human race, and, as all advances in the sciences and arts that have taken place have, so to speak, occurred in epochs, it could be the good fortune of only a few of that great number to build monuments for themselves out of the greatness of their own minds, while for the rest it was ordained by fate that their brilliancy should die with them.

It was only with the coming of PARÉ in the sixteenth century—the son of a barber—that the germ which was in after years destined to be the parent of modern surgery entered the medical profession. By his accomplishments and his writings "he furnished proof that not the most learned but almost exclusively the most gifted have accomplished the revolutions in our profession." His accomplishment will be none the less applicable to some of those I shall have occasion to mention as shining lights in the advancement of our profession in the

present century. Like many great surgeons, even down to the eighteenth century, PARÉ stepped from ordinary day labor to his studies. He acquired his early medical education in the Hotel Dieu. The story of his early struggles, and the many barriers placed in his path, also his final successes, is a most interesting study. He enjoyed the distinction of having held the position of surgeon successively to three kings. He was the first, as far as I know, to use the ligature in amputation. He was also a successful operator in the field of gynecology, and is credited with having been the first to use the suture in the operation of perineorrhaphy, although GUILLEMEAU, a student of his, was the first to really describe the various steps of the operation in 1612.

Time will not allow me to trace the brilliant achievements of the French school. They seem to have been in the ascendancy during the sixteenth and a part of the seventeenth century, especially in surgery, and this was undoubtedly due to the vast experience which they were privileged to get from the many wars in which their nation was involved. But I want to confine myself as far as they are concerned to their achievements in gynecology. Following PARÉ, we owe much to JULES CLEMENT, a famous obstetrician in the early part of the eighteenth century, who was accoucheur to the Queen of Spain and other noble ladies, and who greatly aided the transfer of midwifery into the hands of men. Still later we find that MAURICEAU, who died in 1719, was a man of great experience, but his teachings were confined principally to the obstetrical art. He objected, however, to the operation of cesarian section on the living woman, and in this he was supported by PIERRE DIONIS, who wrote about the same time and whose writings were translated into many languages, even the Chinese. Another vigorous French writer whose works were published prior to those of RÉCAMIER was VIGAROUS. This author writes upon the subject of electricity and describes its manner of use as one of the modes of curing sterility; but the impetus which was given to the progress of practical gynecology by RÉCAMIER and his followers in the early part of the century was succeeded by such brilliant results that one might almost believe that to him was due the title of the Father of Modern Gynecology, did we not know that such a mantle was destined to fall upon the shoulders of one of our own countrymen.

I have thus far hastily reviewed the history of medicine and surgery in a few of its branches from Biblical times to the beginning of the present century, and noted the doings up to that time of a few of that vast number of faithful and patient workers who have devoted themselves to the relief of human suffering and the good of their fellow-men. I have told you of some of their peculiarities, their struggles, the hardships and religious creeds they had to contend with, and also, to some extent, of their successes and the marvelous skill and ingenuity they must have been endowed with to have accomplished what they did so many centuries before the Chris-

tian era, especially as they were obliged to work without the aid of that greatest of blessings to living man, anesthesia, a product of the nineteenth century, and of our own country, without which we of to-day, as did they, might dwell in ignorance of a proper knowledge of internal diseases and the art of relieving many of them by surgical methods. The study was so pleasant and I found so many to whom I wished to give honor and praise that I fear I have allowed myself to dwell too long upon it, and you are already weary before I have touched upon the accomplishments of the present century, or what is designated as the modern method of treatment. You are all so familiar with it that anything I can say will undoubtedly prove prosy; but here I find, as in the centuries that have passed (although I think no one will dispute the belief that the present century has produced more great men than any previous one) the mantle of true greatness—that which shall endure and be handed down to future generations and designate them as lasting benefactors to mankind—is destined to fall upon but few in our profession. Even so, should they alone receive all the praise? Certainly not; rather should it go to their co-workers, whose name is legion; who, although not the originators of the idea, method, or invention, have at once taken it up, worked it over, added to it, or pruned it, until it has taken its place among the great benefits to the people of this world, and then, and not till then, crowned its originator with lasting distinction among his fellow-men.

I have said that progress in our profession has seemed to occur in epochs; and the medical history of so much of the present century would seem to bear me out in that statement, for the present modern art of both medicine and surgery, if I am not mistaken, is the outcome of three great evolutions that have taken place, possibly within the memory of many of those present. I refer to the discovery and introduction of anesthetics by MORTON and SIMPSON, the bacteriological works of PASTEUR, and the antiseptic methods of LISTER.

It is needless for me to discuss them—you know what a lasting benefit was given to us with the coming of each of them. With the discovery of ether and chloroform and their introduction into medicine and surgery in 1846 the greatest enemy to the advancement of our profession in all the past centuries vanished—dread of pain. The skillful surgeon at once undertook and performed feats in surgery which he had never dreamed of before, and the practical obstetrician had a silent friend at the bedside who helped him save many a mother and child whom he would otherwise have lost. The mind of the layman was put at rest—if he suffered, he could have relief without pain, even though the knife cut deep, and he no longer bore with resignation the results of accident, disease, and deformity. At about this time there appeared among us one whom we are to-day proud to recognize as the Father of Modern Gynecology—MARION SIMS—because he justly earned the distinction by his genius and skill, energy

and perseverance; for he brought the practice of gynecology out of darkness into the light, and placed it upon a firm foundation. In his southern town he first worked as a successful general surgeon, operating without the aid of ether. And accident, as with many another surgeon, caused him to stumble upon his method of curing vesico-vaginal fistula. The instrument with which he achieved his success and which remains associated with his name, owed its origin to the necessity of making use upon one occasion of a bent kitchen spoon, and thus originated the now world-renowned Sims speculum.

At this point I want to call attention to the one great factor, and, I may say, the only one, aside from the discovery of ether, that has been instrumental in giving us of the nineteenth century advantage over our ancestors; one which has enabled us to improve upon their methods, to make certain of what they were not sure of, in fact to regenerate, so to speak, every method of practice known to them, and to add for ourselves many methods they could not possibly have been capable of doing; and that aid has been mechanics, as applied to medicine and surgery. It was SIMS's skill and ingenuity in the invention of instruments with which to do his work that brought him success and reputation. And so, on down to the present moment, the surgical-instrument maker has been an indispensable aid to the progress of surgery.

Although the works of SIMS did not produce an epoch in the history of medicine and surgery, he so improved, elaborated, and renovated the practice of gynecology as to create an era for that specialty in this country, and place us in the position of teachers of other nations. Working in the same line with him were many others who have placed their names high on the roll of honor. In this country may be mentioned MCDOWELL, discoverer of ovariectomy; DUDLEY, of Kentucky; BATTEY, EMMET, ATLEY, THOMAS, and GOODELL; while of those in foreign countries with whom we are all familiar I may mention KEITH, TAIT, HAGAR, FREUND, SCANZONI, SIMON, SEGOND, MARTIN, and SÄNGER—all men of brilliant minds and skillful dexterity, who have aided in bringing the art of gynecology to its present state of perfection. But even they with all their skill did not begin to get the results that the younger men of to-day secure. And why was this? It remained for PASTEUR, with his culture-mediums and his microscope, to show them the reasons of their failures, and why so many of their cases died of sepsis, and to again revolutionize the methods of treating disease. But he was not a practical surgeon; therefore, it became necessary for someone else to apply his theories to the treatment of disease of a surgical nature, and Sir JOSEPH LISTER was destined to be the man who should advocate and put into practice a method of doing surgical work that, although it has been changed and improved, has not only revolutionized the art, but has brought it to a state of perfection which, it seems to me, it is almost impossible to improve upon.

Of the present moment I need not speak, as you all are familiar with the doings of the day. I have attempted to make a few comparisons between ancient and modern methods in our profession, and show you that the only advantages which we have to-day over our predecessors are due to the aid of anesthesia, a perfect knowledge of germ disease, and mechanics, which have brought to our aid methods of doing absolutely clean work. Let us hope that the successes attending our work will not lead us to deal a blow to further advance, by causing us to become hobbyists and caterers to faddism. Let us also hope that our efforts in the future will be directed toward saving to our fellow-men many of those organs which we now feel it necessary to sacrifice. Let us not remove the appendix for the price there is in it; let us not bring ourselves to believe that every woman who has a pain in her side must necessarily have a kidney fastened; let us make every effort to cure prostatic disease before resorting to castration; let us not take from woman her generative function, if we can, by further study and increased skill, successfully battle with diseased conditions within the pelvis, for which we now so readily sacrifice her uterine appendages.

And now, before closing, let me give expression to the hope that we are at the dawn of another epoch in science which we can apply in our profession, that will accomplish the desired object and again revolutionize for our benefit much of the work of the present day. I refer to the application of electricity, as applied by the Röntgen rays, to the diagnosis of internal disease. It is but an infant, but it is a vigorous one already, and if, with further development, it will show to us diseased conditions for which we are now obliged to make exploratory incisions, or make plain to us the early stages of internal disease for which we can now only comfort our patients with a good guess, or stand as a barrier against the reckless use of the knife for mercenary purposes,—we shall greet it with thanksgiving and call it blessed.

New York; 678 Madison avenue.

“**Kresochin**” is the name given the article which was briefly described under the name of “**Quinosol**” on page 1320 of volume VIII of the BULLETIN. Further details are now at hand, and are here given. This substance is said to be a compound or neutral quinoline tricesylsulphonate and a loose combination of quinoline with tricesol. It is said to contain 33 per cent. of quinoline and 17 per cent. tricesol, and characterized by the absence of alkalies; to be a good bactericide; not to irritate, bite, or make the hands slippery, and make a clear 5-per-cent. solution in water.

The Lay Reporter and Coroner Inquests.—The London *Lancet* objects, even as the BULLETIN has repeatedly, to the appearance in the lay press of the unsavory and sensational details which too frequently surround coroners' inquests. The only way out of this is for the coroners in their discretion to give facts to the reporters, and this is in accord with the intention of at least one of the coroners of this county.

A REMARKABLE CASE OF VENTRAL HERNIA, CURED BY A FLAP OPERATION *

By GEORGE H. NOBLE, M.D.

HERE is a brief report with some rough schematic drawings of an enormous hernia between the ensiform cartilage and the umbilicus. The subject was a very large woman who came to me from a neighboring State, giving a meager history, saying that the protrusion first appeared after severe straining, and grew rapidly until it reached the size of an adult head. The treatment she

To fully appreciate the intrinsic strength of the flaps, it is well to refer briefly to the distribution of the aponeurosis in this locality. The three flat abdominal muscles shade off into aponeurotic layers as they approach the lineæ semilunares; that of the external oblique passes anterior to the recti muscle to join its fellow of the opposite side; that of the transversalis passes posterior to the muscles to join its fellow; while that of the internal oblique divides at the external margin of the recti into two layers. The anterior passes in front of the muscles and



FIG. I

TRANSVERSE SECTION OF BODY SHOWING RELATIVE SIZE OF HERNIAL OPENING, *AA*, AND SAC; ALSO RELATION OF FASCIA AND APONEUROSIS TO THE RECTI MUSCLES, *C*. EXCESS OF SAC TRIMMED AWAY AT *BB*, AND PERITONEUM STRIPPED DOWN TO *AA*, AND UNITED IN THE MEDIAN LINE AS SHOWN IN FIG. II

had received consisted in local applications only, no attempt at operative measures having been made.

The case is one of considerable interest on account of such a large hernia in this region and because the expansion of the ribs prevented closure of the ring, by approximation of its margins, necessitating, therefore, a flap operation to close the aperture, which was large enough to pass my closed hand through

unites with the aponeurosis of the external oblique.

The posterior passes behind the muscles uniting with the aponeurosis of the transversalis muscles. These two lamellæ again unite at the inner margin of the rectus and are finally lost in the linea alba.

The recti muscles apparently divide the aponeurotic or fibrous layers equally in an antero-posterior direction, but intrinsically the greatest strength lies

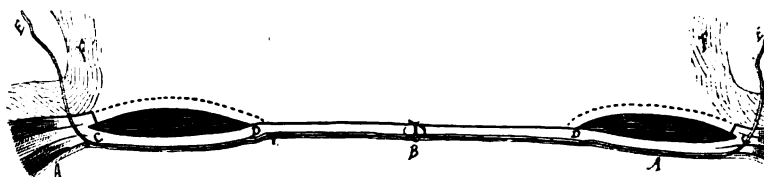


FIG. II

PERITONEUM, *AA*, UNITED BY BURIED CATGUT IN THE MEDIAN LINE, *B*. THE DOTTED LINES, *CD*, REPRESENT THE ANTERIOR SHEATH OF THE RECTI MUSCLES WHICH HAVE BEEN CUT AWAY AND TURNED OVER THE HERNIAL OPENING, *DD*, AND UNITED BY BURIED SILK SUTURES IN MEDIAN LINE *B*. *EE* IS A TENSION SUTURE PASSED DOWN TO THE PERITONEUM, BUT NOT IMPLICATING IT. *FF*, SKIN AND FATTY TISSUE TURNED ASIDE. *GG*, RECTI MUSCLES

without resistance. Indeed, a prominent surgeon ventured the assertion that if I ever cut that woman open, I would never get her sewed together again, so it was my desire to demonstrate that the operation was feasible, having studied or worked out the method most suitable to it.

in the innermost surface of the abdominal walls, or is inherent to the transversalis fascia.

The operation was a very simple one, consisting:

First. In trimming away the excess of the sac, and uniting the peritoneum with buried catgut sutures.

Second. Four strong tension sutures were passed

*Read before the Med. Assn. of Ga., at Augusta, Ga., April, 1896.

through the abdominal walls, piercing the semilunar lines down to the peritoneum but not implicating it.

Third. A semilunar flap was carefully outlined upon either side over the recti muscles with the straight or vertical sides upon their outer margins, and the convex borders turned toward and extending to the hernial ring. The aponeurosis of the external oblique and the outer layer of that belong-

The wound proved entirely aseptic and the results most satisfactory, the woman now having been well for about three years without any indications of a return of the hernia.

So far as I know, this is the only hernia in this region that has been closed by a flap operation; and being a new departure from the established customs, questions concerning its utility and efficacy may

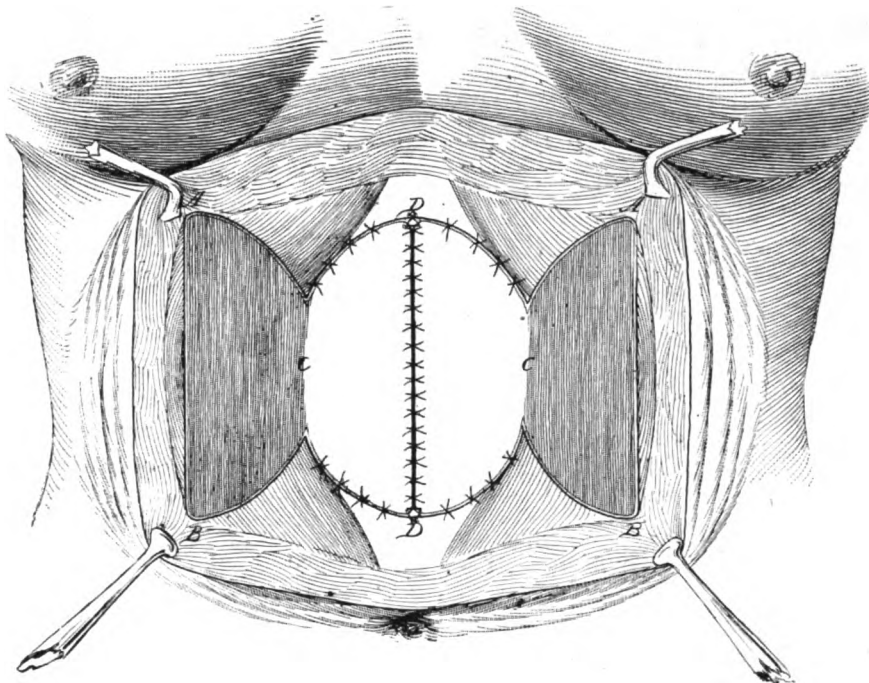


FIG. III

ANTERIOR VIEW SHOWING HERNIAL OPENING, DCDC, AND SEMICIRCULAR FLAPS, A, B, C, CUT FROM THE ANTERIOR SHEATH OF THE RECTI MUSCLES AND TURNED OVER THE OPENING AND UNITED IN THE MEDIAN LINE, D. (CROSS-SECTION OF SAME, SEE FIG. II.) SIZE OF HERNIAL OPENING, FOUR AND A HALF INCHES VERTICALLY, DD, AND THREE AND A HALF INCHES TRANSVERSELY, CC

ing to the internal oblique muscles were cut through and the flaps liberated, except where they joined the ring, and turned over the opening accurately abutting the edges, in which position they were stitched with buried silk sutures. The convex borders coincided with the margins of the ring to which they were made fast.

Fourth. The recti muscles were brought in direct

very naturally arise. Its applicability must be confined to such points as will permit flap taking without permanent injury to the transversalis fascia, as it must be relied upon to give strength to the abdomen.

As for efficacy, the simple fact that the strong flap of fibrous tissue and recti muscles relieved of their sheaths and firmly united to each other have

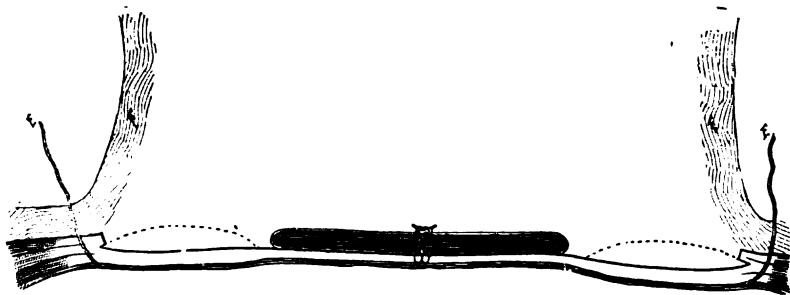


FIG. V

SAME AS FIG. II, WITH THE RECTI MUSCLES DRAWN INTO APPPOSITION AND COVERING THE HERNIAL OPENING BY SURROUNDING THEM WITH HEAVY CATGUT SUTURES

apposition by surrounding them with large catgut, thus adding another strong layer of dense tissue over the hernial opening.

Fifth. The skin and fatty tissue were then brought together and the tension sutures tied over all, the wound was dressed antiseptically, with firm pad, roller bandages, etc.

proven sufficient to effectually close a hernial opening equivalent to about twelve square inches in extent should be sufficient to establish it, so far as the hernia *per se* is concerned.

With reference to the parts from which the flaps were taken, no fears need be entertained regarding the liability of hernia there, as they are protected

by the transversalis fascia, for, in the lower fourth of the abdomen, union of this fascia is relied upon to prevent post-operative hernia. The denuded areas, therefore, have as great strength as that portion of the abdomen just mentioned.

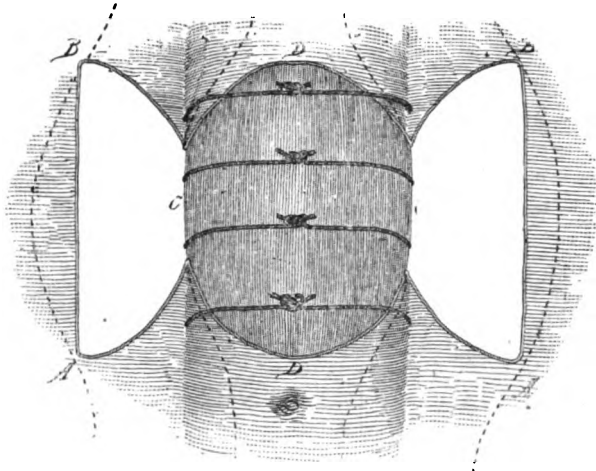


FIG. IV

SHOWING RECTI MUSCLES DRAWN FROM THEIR FALSE POSITION (SEE DOTTED LINES), INTO WHICH THEY WERE FORCED BY THE PROTRUSION, AND FIXED OVER THE HERNIAL OPENING, DCDC. (TRANSVERSE SECTION OF SAME, SEE FIG. V.) THE WHITE SPACES, ABC, REPRESENT THE POSTERIOR SHEATH OF THE RECTI MUSCLES, SHOWING THROUGH THE PLACES FROM WHICH THE SEMILUNAR FLAPS WERE TAKEN

If it should fall to my lot to do a like operation, I would make but one modification—that of using buried silver sutures instead of absorbable materials. Silver has for nine or ten years had my

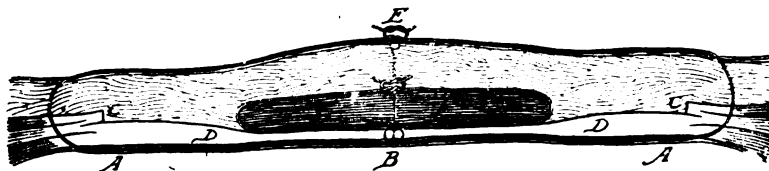


FIG. VI

SAME AS FIGS. IV AND V, WITH SKIN AND FATTY TISSUE BROUGHT TOGETHER AND TENSION SUTURES TIED OVER ALL

preference as a suture, and I am glad to say that I have never had occasion to regret its use. Besides its value as a permanent suture, the exudate that is thrown around the wire organizes into dense tissue that very materially increases the strength of the parts.

Atlanta, Ga.; 186 South Pryor street.

INGROWN TOE-NAIL MECHANICALLY TREATED *

HENRY LING TAYLOR, M.D.

THE condition known as ingrowing or ingrown toe-nail consists essentially in an infected, and irritated ulceration of the soft parts at the margin of the nail. Improper shoes, a careless toilet of the nails, or accidental causes, may produce an abrasion, which in most situations would be trivial, but here becomes readily infected by the imprisoned germs, which greatly thrive in the genial warmth, moisture, and darkness of that ideal incubator, the swathed foot. Under these conditions and with the constant irritation of the

impinging nail, flabby, pulpy granulations press up against the nail-edge, the part becomes swollen and tender, and if walking is attempted the result is like drawing a file from time to time over an unhealthy sore. This condition often gives rise to chronic misery, varied by acute pain on attempting to walk; frequently the shoe cannot be worn unless cut over the toe; so that the sufferer may be completely disabled, and unfit for work, for an indefinite period. That relief is not always readily furnished may be inferred from the large and increasing literature, and from the new methods of treatment brought forward from time to time. Volume IX of the Index Catalogue, published 1888, gives the titles of 17 monographs and 153 journal articles on this subject. Most methods of treatment recognize the paramount importance of protecting the ulceration from the pressure of the nail-edge. The various operations recommended aim to do this by excising the whole or a part of the nail, the granulations, or both, or by so altering the shape of the parts that the nail-edge and the ulceration do not meet. The best operations have the advantage under favoring conditions of furnishing tolerably speedy and certain relief; they have the disadvantage of inflicting more or less mutilation.

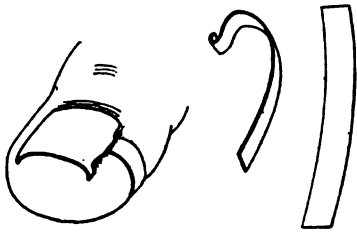
The mechanical methods consist in raising the impinging edge of the nail by inserting bits of gauze, lead foil, or other substance beneath it, or by pressing away the granulations by a small and carefully adjusted compress. If the nail has not been cut short at the corner the first plan will often succeed. Better protection can usually be given by using the following method, slightly modified from that used by Mr. H. T. MASTERS, of Whitechurch, England, and mentioned in "Pye's Surgical Handicraft," vol. II, p. 523. A flat strip of silver, one-one-hundredth inch thick, one-eighth inch or more wide, and an inch long, is bent by means of small forceps into the shape of a fish-hook. The hook will usually fit the toe better if shaped from a strip of metal slightly curved on the flat, and so bent that the shorter edge will be in front. In this case the hooks are of two kinds, rights and lefts; for many toes the straight hooks answer perfectly well and can be used on either side.

After cleansing the toe with hydrogen peroxide and placing a pledget of cotton soaked in a 4-per-cent. solution of cocaine in contact with the granulations the hook is inserted beneath the lateral edge of the nail in such a manner that the latter rests in the depression answering to the barb, while the shank of the hook curves over the side of the toe and close to it (see figure). With a little knack the hook is readily put in place; the more the ulceration the less the pain, since there will be more room for the hook. A little gauze is placed over the toe to absorb discharge, and the hook is held in place and pressed upward against the lateral edge of the

* Read at the annual meeting of the American Orthopedic Association, Buffalo, N. Y., May 20, 1896.

nail by a few turns of gauze bandage or adhesive plaster wound around the toe. After a few hours the patient usually suffers no inconvenience from the hook, if it is properly placed, and is very soon relieved of the pain due to the irritation of the nail. In a few days the swelling and redness subside, the granulations shrink, and in two or three weeks the ulceration is healed or is well on the road toward it, and complete recovery quickly follows. After the insertion of the hook the dressing is to be changed and the hook adjusted when needful; after the first week once or twice a week will do. It is well to wear the hook for several weeks after the ulceration is healed, in order that the newly healed tissues may have time to harden, and also to hold the nail up until it is fully grown out. This often helps to give the nail a better shape and prevent recurrence. The patient should be directed not to cut the nail short at the corners, but to let it grow square.

The results of management on this plan have been very satisfactory, and the method is applicable to the severest cases, the only limitation being when the nail has been cut off so short that there is no edge to hook under. Under these circumstances a



delay of a week or two, to give the nail time to grow, may be necessary; I have seen one such case. The cases that I could control, and some were of several years' standing, got well in a few weeks; the length of time necessary for a cure is hardly a drawback, since the patient is comfortable and able to go about. In patients not readily controllable operative measures may often be preferred. As in any kind of mechanical treatment, this little maneuver calls for a certain amount of painstaking, dexterity, and judgment. We must see to it that the hook is actually doing from start to finish the work we have put it at, or it becomes merely a foreign body imbedded in the toe. In order to test the matter I have several times inserted the hook without cleansing and dressing the toe, and still have had good results, showing that the cellular forces of the organism are often able to cope with germ life, if factors calculated to depress their vitality—in this case the impinging pressure—are removed.

This well illustrates the differing behavior of diseased and infected joints under adequate mechanical treatment and when left to themselves. In the one case pressure, tending to devitalize the tissues which feel its force, is removed, and the tissues unmistakably take on a healthier action and tend to heal. In the other case local destruction may proceed indefinitely. There is little tendency to

heal, and cure finally takes place, if at all, only after considerable loss of substance.

New York; 117 West Fifty-fifth street.

Ichthyol in Diseases of the Uterine Adnexa.—

ROBERT BELL (*Edinb. Med. Jour.*, 1896, No. 490, p. 921)

The result of careful observation had led the author to the conclusion that the ovaries or tubes very rarely, if ever, become diseased independently of some pre-existing disease or lesion in the uterus or cervix. Ichthyol is eminently useful in such diseases, he says; and it is well to consider the etiology of the various pelvic disorders that daily come under observation, of septic or inflammatory nature.

Cystic, malignant, fibroid, and tuberculous affections of the ovaries are of course beyond the range of ichthyol as a therapeutic agent.

Laceration of the cervix has an important bearing on the causation of oöphoritis, and is an invariable precursor of endometritis; and the ovary will be affected on the side lacerated, making it a necessity that this lesion be attended to simultaneously with the application of ichthyol.

While it may not be necessary to repair the cervix to insure recovery of the endometrium, the chances are that recovery will not be permanent if the lesion be permitted to continue; and certainly the ovary will not have nearly as good a chance if trachelorraphy be not resorted to.

Two cases are reported, both in married patients who had borne children. One had been an invalid for eight years, the other for over six years; during these periods both had been sterile. In each case one ovary was considerably enlarged and very tender, while the other was diseased to a less marked degree. In both cases, endometritis with considerable hyperplasia existed, the general health was poor, and great pain was felt on locomotion.

After curetting, iodized phenol was applied once a week to the entire endometrium, and a tampon saturated with ichthyol was introduced biweekly.

After three months' treatment in each case a gradual improvement in health, and relief of local symptoms, resulted. The younger of the patients became pregnant within a year afterward, and was delivered at full term of a healthy child. Both were in good health at the date of this report.

The results obtained by the use of ichthyol tampons in salpingitis, oöphoritis, hematoma, and pelvic cellulitis have been excellent; and, while in a very small percentage of cases certain unpleasant bladder symptoms were produced, these were so easily modified that they cannot be said to militate against the employment of a remedy which has caused a large falling-off in the number of operations formerly considered necessary.

In conclusion, the author states that ichthyol will be found to be a most reliable and almost uniformly potent therapeutic agent where inflammatory conditions of the uterine appendages exist, if measures be taken to remove the primary disease or lesion simultaneously with the treatment of the secondary, more especially where laceration of the cervix co-exists.

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WILLIAM HENRY PORTER, M.D.

ASSOCIATE EDITOR

EGBERT H. GRANDIN, M.D.

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NEW YORK'S WATER SUPPLY.—When the new aqueduct was completed it was confidently expected that the citizens of New York would no longer have occasion to complain of the amount of water furnished them. Yet, during the past winter and during the spring, complaints have reached us from all sections of the city that the supply was inadequate to the needs. The excuse was offered that the shortness of supply during the winter was due to the reckless waste of householders, who, to avoid the freezing of pipes, allowed the water to run during the night. Of late, however, we have had no freezing weather, and yet, except in favored localities and in apartment-houses where the tank on the roof furnishes an ample supply, the amount which the average citizen enjoys is entirely inadequate. The answer which will doubtless be given by the authorities is that as yet we do not possess sufficient storage reservoirs, and with this answer the citizen must needs rest content.

A more serious matter, however, and one which calls for speedy and rigid investigation, is the foul character of the water furnished the city. A chemist of considerable repute claims that the water is not potable. This appears to us, after proper investigation, an alarmist opinion. Certainly those

diseases which can be traced to pollution of water supply do not exist in the city to an unusual extent, as they most assuredly would were we drinking water of the foul type described. Again, we are assured by the proper authorities that an examination of the Croton water is made weekly at three different points, and that up to date no impurity has been discovered. It still holds, however, that at this season of the year, in the absence of heavy rains in the Croton valley, the water is discolored to a greater or a less degree, and this matter is receiving, so we are informed, the attention of the authorities. Probably New York will not possess an ideal water supply until a system of filtration has been introduced. The enormous outlay this would involve, however, naturally deters the authorities from making an attempt along the line requisite for giving us that which we are entitled to and that which sanitation demands—the purest possible water supply. Meanwhile each householder may do much toward protecting himself and his family by causing all the water he uses to be boiled—a procedure far more efficacious than the use of any of the elaborate filters which make the water clearer but which do not destroy the nitrites.

EXPERIMENTATION WITH "CURES" IN THE PUBLIC HOSPITALS.—It is stated that the Commissioners of Public Charities have assigned a number of beds in Bellevue Hospital to a gentleman not connected with the medical board, in order that he may test a specific against drunkenness which he claims to have discovered. It is certainly a laudable aim to endeavor to cure and to prevent drunkenness, particularly if the remedy will rid the city of the chronic drunkards who fill the wards of the hospitals to the exclusion sometimes of those who are suffering from disease acquired through no fault of their own. In so far the action of the commissioners is to be praised, and possibly there are some medical men and laymen who will applaud the action on the ground that a medical man not connected with the clique which now controls the public institutions has an opportunity to experiment. It seems as though this were reform with a vengeance, for, after all the protests made that, under past régime, the commissioners and not the medical boards had the say,—if, indeed, in the present instance, protest has been entered,—the commissioners are, nevertheless, having their own sweet will.

The real question at stake, however, is the ethical one of the use of a secret remedy—if this new cure turns out to be a specific of a better type than one

at least which, not so long ago, through the medium of a supposedly reputable journal, was foisted on a suffering profession and still more suffering humanity. The proper course for the commissioners to have taken was to insist on the publication of the formula of the specific, and then they would have had unquestioned right to assent to its being tested in Bellevue and in the other hospitals which they control, not only in name, but also in fact, irrespective of the wishes of the constituted medical boards. The BULLETIN awaits with anxiety the result of this test, not alone because of the interest it feels in the cure of the drunkard, but also because it is curious to note what effect the protest of the medical board against the invasion of its prerogatives will have. Is it to be the case that the "King is dead, long live the King"? If the late commissioners of unsavory deed did indeed control the public hospitals in every respect, do the present commissioners of—well the character of their deed is as yet undiscovered—propose to be governed by medical boards?

THE SYMPTOMATIC DRESS OF THE *Record*.—Our very distinguished contemporary the New York *Medical Record* is renewing its youth, having appeared last week in a dress resembling the color the fair sex so much admires nowadays—Nile green, or something approximating this. The object of this new and most becoming dress was the advertisement of certain summer resorts, with which, by the way, every enterprising reader of the *Record*—if it still possesses any—is amply familiar. It brings the blush of shame to the cheek to suppose for one minute that the elaborate announcements of these summer resorts should be at all necessary. What physician but, in the fall of the year, when his patients return from their outings, knows the average summer resort well as he labors with the typhoid germs which are too apt to germinate in profusion in many of these summer resorts. Curiously enough the best resort of all—the city of New York—finds no mention in this prospectus of the *Record*, and it is the aim of the BULLETIN to supply the missing link by calling attention to the fact that nowhere in this country can more equable conditions of climate be found, and withal more amusement of every type, than just here in New York city. Will the officials kindly take notice and duly send check for this ad. to the business department of the BULLETIN?

By the way, does the *Record* wear a new dress because it is at last getting rich enough to purchase

one, or does the color of the dress typify its jealous feelings as it views the advance march of the BULLETIN?

THE DISCLOSURES AT THE ALMSHOUSE.—For some time past there have appeared in the daily papers occasional references to alleged irregularities of the house staff at the Almshouse Hospital, on Blackwell's Island. The matter culminated on June 5, when three of the resident physicians of the institution were arrested, on a warrant charging them with stealing and appropriating to their own use drugs and supplies furnished to the almshouse by the city. A fourth doctor, whose name was included in the warrant, was in Canada at the time the warrant was issued, but it is stated that steps will be taken to insure his return. The three doctors arrested waived examination, furnished bonds, and now await the action of the grand jury. The disclosures which led up to the arrest were the results of an investigation carried out by the president of the Board of Commissioners of Charities, by a member of the Medical Board and by the Warden of the almshouse. The suspected physicians admitted the charges brought against them, and hospital supplies to the value of \$430 were found in their possession.

To estimate the degree of moral wrong of which these young men are guilty is a matter which presents serious difficulties. The charge against them is grand larceny, and they admit having appropriated for their own use city property to which they had no right whatsoever. In their extenuation it has been urged that the practice of taking hospital property for personal use has, for many years, been authorized by precedent. It is said that in many of the city institutions the graduating house officers supply themselves at the city's expense with bandages, dressings, etc. Most of city institutions pay no salaries to their resident staffs, and it is alleged that the physician who is leaving the hospital considers it his perquisite to supply himself with some of the necessary articles for the beginning of practice. If this state of things has existed for a considerable time, which would be very difficult to prove or to refute, the moral guilt of the accused almshouse physicians becomes less. Laws which have become dead letters or which permit of liberal interpretation, are daily violated with impunity; and wrong practices, if uninterfered with by law, soon become established customs. Furthermore, in extenuation of these young men it may be said that they all affirm that they did not consider that they were stealing, a statement which receives

support from the fact that so many of them were implicated in the same way, and from the simple manner in which they stored their spoils. A well-educated thief does not put stolen property in a trunk.

The punishment which has overtaken these young doctors is already very severe; the publicity which the affair has gained will prove to be a great obstacle to their success, even if no indictment is returned against them. If they are indicted, their future will be still more seriously compromised, even if the trial results in acquittal.

But the present investigation is most timely if it brings to light any similar irregularities in public institutions. If, as has been alleged, the city has been regularly robbed of its supplies, it is high time that those in authority knew the facts and checked the loss. If the resident staffs considered themselves justified in appropriating city property for their own use, they should speedily be taught that the education which they receive is ample return for their services, and that they have no more right to city property than to private property. The difference between right and wrong, always evident to delicately conscientious men, becomes emphasized by such disclosures as have recently been made at the almshouse; to others, precedent can no longer serve as an excuse for any act which appears irregular in the light of judicial investigation.

It is to be hoped that the present example will have a far-reaching influence, extending beyond hospital wards. All connected with medical schools and clinics are aware that there are almost always some students in the school who steal. Coats, hats, and umbrellas, if not tenderly guarded, often go astray, and almost every year requisitions must be made out for instruments or supplies which have mysteriously disappeared.

For such acts as these there is no excuse; they are indefensible on the ground of precedent or any other; they are stealing. The task of the detection and exposure of such characters should not be limited to the college faculty; students should be eager to join in the attempt to prevent such men from entering the ranks of the medical profession. A physician's honor should be absolutely untarnished. Whatever other rewards a doctor's degree may bring, it always brings a position of honor and respect in the community. From no class of men are so few credentials required as from physicians. It is always presumed that they are men of strict integrity and morality. That society does not err in its giving us so generous a reception should be our

constant care. Whether we be practitioners of medicine or aspirants for degrees, doctors, or students, we should be ever mindful of the good name our profession bears and be continuously on the alert to avoid and discountenance acts which might bring discredit upon it.

We willingly believe that the doctors who now are awaiting the grand jury's action did not consider that they were stealing when they took what they did; but we hope that the punishment which they are now receiving will serve as a warning to any whose consciences have elastic properties. If the custom of appropriating city hospital supplies has existed for many years, and there is reason to believe that it has, it would be unfair that these young men should pay the full penalty of their offense, and of the offenses of their predecessors; let us rather hope that they will be leniently dealt with as individuals, but that the present investigation will result in a cessation of the peculations in hospital clinic and medical school. The matter should receive such publicity, and the laws, irrespective of custom, should now be so clearly understood, that similar offenders in the future should be made to undergo the full consequences of their acts.

THE WORK OF THE NATIONAL SOCIETIES.—The BULLETIN has published accurate and complete reports of the leading national societies, and its readers may judge of the caliber of accomplished results. As a rule, it may be conceded that this year considerable of scientific value was added to our knowledge. On the whole, the proceedings have partaken less of a rehash of the past, and more work of an original character has been attempted. Aside from the transactions of the societies devoted chiefly to the furtherance of surgery, the aim to-day appears to be along the bacteriological and serotherapy line of research. True enough little of a very startling nature has been given to the medical world, but, from the investigations of the many, we may hope in the near future to be in a position to dogmatize, to an extent, as to the outcome of the crazes of the present day. It is a good sign that, with few exceptions, these societies have devoted themselves to scientific work and less to recreation of a character appealing chiefly to the stomach. Not that this has been neglected, and it would be a pity should the day ever come when it shall be all work and no play with an overworked profession; again, the social meeting of men from different sections of this vast country leads toward that united action and aim which we all hope and pray for.

GENERAL MEDICINE

Department Editors

WILLIAM CHARLES GUTH, M.D.

and

HENRY TURNER BROOKS, M.D.

Collaborators

ADOLPH ZEH, M.D., ADOLPH BARON, M.D., JOHN HOCH, M.D., WILLIAM VISSMAN, M.D., WILLIAM Y. FINCH, M.D., GEORGE W. BLANCHARD, M.D.

Experimental Study of Serum-therapeutics of Diphtheria.—L. COBBITT (*Jour. of Path. and Bact.*, 1896, III, No. 4, pp. 327-343)

The author's conclusions are as follows:

1. The blood-serum of normal horses may possess definite antitoxic power.

2. In the blood-serum of a horse immunized by the injection of living bacilli, the property of rendering harmless injections of these bacilli into other animals predominated over the property of rendering harmless injections of toxin, while these two properties were possessed in equal degree by the serum of a horse immunized by injections of toxin. This observation gives support to the suggestion that there are two different therapeutic agents present in the serum of an immunized animal.

3. The diminution of antitoxic power, which may occur in the serum of horses, in spite of their continuing to receive injections of cultures of toxin, is probably due to one of two causes—

(a) Either to the existence of local immunity in the region into which the injections are made, which, by destroying *in situ* the material injected, allows little or no constitutional effect to be produced upon the animal; or

(b) To the fact that the immunity which the horse ultimately acquires as the result of treatment is, like many observed instances of natural immunity, independent of the possession of antitoxic properties by the serum of the animal.

4. Finally, the results of the experiments described in this paper seem to indicate that the best and quickest method of obtaining serum of antitoxic value from the horse would be to commence with injections of living bacilli, and after a period of perhaps five or six weeks to proceed with intravenous injections of filtered cultures.

The Fermentations Provoked by the Pneumobacillus of Friedländer.—GRIMBERT (*Annales de l'Institut Pasteur*, IX, p. 840)

In 1883, BRIEGER, studying the action of the pneumobacillus of FRIEDLÄNDER, upon solutions of glucose and of cane-sugar, obtained, as the chief product of fermentation, acetic acid together with a little formic acid and ethyl alcohol; the same products were yielded by lactate of lime and creatin.

In 1891 P. FRANKLAND, A. STANLEY, and W. FREW undertook to establish the equations of these fermentations by quantitative analysis.

The pneumobacillus which they used for experiment was furnished in 1886 by the Institute of Hygiene of Berlin, and had, since that date, been repeatedly sowed upon gelatin-peptone.

GRIMBERT, using a specimen of pneumobacillus sent him by ROUX, obtained results that differ widely from those obtained by FRANKLAND and his collaborators. In his conclusions he says:

1. The products of fermentation, provoked by the pneumobacillus of FRIEDLÄNDER, are ethyl alcohol, acetic acid, left lactic acid, succinic acid

2. While glucose, galactose, arabinose, mannite, and glycerin give left lactic acid, to the exclusion of succinic acid, saccharose, lactose, and maltose give both succinic acid and left lactic acid; dulcitol, dextrin, and potatoes produce only succinic acid, without a trace of lactic acid.

3. Acetic acid was encountered in the pure state in every fermentation, without mixture of formic acid or propionic acid.

4. Ethyl alcohol, less abundant than the other products, was absent in the fermentations of potato and of arabinose, and existed only in traces in those of glucose, of saccharose, and of maltose. In the fermentations of dextrin it was mixed with a small quantity of the higher alcohols.

5. We dwell particularly upon the products of the fermentation of mannite and of dulcitol. The first of these two isomeres furnished left lactic acid, while dulcitol gave only succinic acid.

We have then before us the rare example of a ferment giving products varying with the nature of the sugar that it destroys. It would be premature to attempt to establish a connection between the chemical function or formula of constitution of the hydrates of carbon employed in our researches and the products of their fermentation; still we cannot be wrong in saying that left lactic acid has been furnished exclusively by those hydrates of carbon possessing an alcoholic function (with the exception of dulcitol) regardless of the number of their atoms of carbon; that the sugars in C_{12} , the bioses of SCHEIBLER, have given a mixture of lactic acid and succinic acid, and that the hydrates of carbon of a high molecular weight, as starch and dextrin, have given only succinic acid.

If we compare our results with those of the English authors, we see that, while the pneumococcus studies by FRANKLAND and his pupils give only alcohol and acetic acid in small quantities, with traces of formic and a higher acid, the one we have employed gives relatively large quantities of succinic acid or of left lactic acid, according to circumstances.

While the microbe of FRANKLAND does not ferment glycerin nor dulcitol, ours attacks both vigorously.

We must then conclude that there exist at least two pneumobacilli of FRIEDLÄNDER, morphologically alike, but differing widely in their fermentative action, or else that the long series of cultures upon gelatin-peptone to which the pneumobacillus was submitted in the laboratory of FRANKLAND had so far modified its properties as to create a new variety. Be that as it may, whenever a bacterium is encountered which presents all the characteristics of the pneumobacillus of FRIEDLÄNDER, it will be necessary to verify its action upon glycerin in order to discover whether the one of FRANKLAND be the one which we have studied.

To What Extent is Tonsillitis Contagious?—

FRANCIS J. KELLY, M.D. (*Phila. Polyclinic*, 1896)

Five cases are mentioned showing where one child taken ill with tonsillitis gives the disease to her sister, to her mother, to a child in the next house, and also to the author—the attending physician. The father was the only member of the family that escaped, from the fact that he seldom came in contact with the children.

From the above it scarcely seems possible that such an occurrence should be a coincidence. There are instances mentioned where whole families have been attacked with tonsillitis. Cultures taken from each of the five cases revealed nothing but

saprophytic bacteria, such as staphylococci and streptococci.

This article shows the importance of guarding against the contact of the well children with the one affected by tonsillitis.

The Origin of the Venous Pulse in Communication of the Auricles, when Associated with a Mitral Insufficiency.—REINEBOTH (*Deutsch med. Wochenschr.*, 1895, p. 870)

Some time ago REISCH reported a case in which the foramen ovale had remained patent, tending to prove that the true venous pulse, when the above anomaly exists, can be referred to a mitral insufficiency. The author reports a second case of this kind, but explains the origin of the venous pulse on a different basis.

The salient points in the history of the case are as follows: Patient, male, 46, baker; health never of the best, though never really sick; three months ago had acute congestion of the liver; at no time edema or rheumatism. On inspection a distinct pulsation in the fifth, sixth, seventh, and eighth intercostal spaces to the left existed. This pulsation was felt most distinctly $1\frac{1}{2}$ inches to the left of the mammillary line. There was also a distinct systolic murmur at the apex, the second sound over the pulmonary valve being not markedly exaggerated; irregular pulse; the veins of the neck twice the normal size, and showed venous pulse, synchronous with the systole. Since then the systolic murmur became louder; the patient developed hydrothorax, ascites, and edema, and died a week after he had developed a hemorrhagic infarction of the right lower lobe.

The autopsy revealed an immense dilatation and hypertrophy of both auricles, especially so of the left; dilatation with only slight hypertrophy of the right ventricle; a slight dilatation but marked hypertrophy of the left ventricle; the tricuspid valve delicate, the mitral moderately thickened; the chordæ tendinæ somewhat shortened. In the septum between the auricles in front of and below the foramen ovale there existed an opening about the size of a half-dollar and with smooth edges. The foramen ovale was pervious to a probe, the valve closing the foramen capable of complete closure; infarction of the entire right lower lobe.

The author believes the existence of venous pulse in this case admits of two explanations; the first is the one given by REISCH, viz., that the blood which regurgitates on account of the mitral insufficiency is driven partly into the right auricle and the wave thus imparted is transmitted upward into the veins of the neck.

In the present case the change in the mitral valve was so slight that the author feels obliged to seek a more tenable explanation. He is of the opinion that, as long as the heart "was sufficient"—that is to say, while the heart developed muscular power enough to maintain the circulation in good condition—there existed no difference in pressure in the two auricles, and consequently no blood flowed from one auricle into the other during systole. As soon, however, as the mitral insufficiency caused the left auricle to take up a larger quantity of blood, thereby becoming dilated and hypertrophied, a certain volume was forced into the right auricle during systole. In consequence of this the right auricle received a larger volume of blood and therefore sent a larger amount into the right ventricle, which, in turn, became dilated. But then, in time, the right ventricle became unable to hold all the blood which the right auricle received during diastole, and hence a certain quantity remained behind in the latter. The

impossibility of the blood from the veins to flow freely into the right auricle caused a dilatation of these vessels which was most marked at the end of auricular diastole—i.e., synchronous with the ventricular systole. This seems, to the writer, to be the only rational explanation of the venous pulse in this particular case.

Treatment of Ozena with Diphtheria Antitoxin.—BELFANTI and DELLA VEDOVA (*Sem. med.*, 1896, No. 18)

Bacteriological examinations made by the authors led to the conclusion that ozena is caused by a micro-organism identical in form and cultural peculiarities with Löffler's diphtheria bacillus, though differing from it in lessened virulence. This organism was not only found upon the surface but also in the depth of the nasal mucous membrane. According to the authors, it causes the chemical alterations of the secretion, the fetid odor and the atrophy of the mucous membrane and of the bones. These results led them to undertake the treatment of ozena with diphtheria antitoxin. The results attained were surely remarkable, for of thirty-two patients sixteen were wholly cured, seven almost healed, five rapidly improved, and in only four was improvement slow. Ten c.c. of diphtheria antitoxin were injected every second day or, when possible, every day. The number of injections varied according to the age of the individual, the length of time the disease had existed, the degree of local and general reaction. On an average, about 30 c.c. were required to effect a cure. At first the injections cause congestion of the nasal mucous membrane. Soon thereafter the fetid odor disappears, the secretions become liquid, the formation of crusts ceases permanently. The accidents which compel suspension of the treatment are the same as those observed in the treatment of diphtheria and are without danger. When they occur the injections are stopped.

The Employment of Formaldehyd for Hardening Tissues.—J. ORTH (*Berlin. klin. Woch.*, 1896, No. 13)

The author claims that a mixture composed of 40-per-cent. formalin 10 parts, Müller's fluid 100 parts, makes an excellent hardening medium for the majority of human tissues. The microscopical sections show good fixation and an intense gold-brown coloration of the red blood-corpuscles. Karyomitosis occurs with great distinctness even in preparations which are placed in the fluid a long time after death. The staining properties of the sections are quite pronounced. The handsomest pictures are secured with carmine stains, but hematoxylin, as well as complicated stains, such as Gram's, Weigert's fibrin stain, etc., also give good results. This formol-Müller's solution is also of great value in the preservation of gross preparations. The advantage of this solution, even in macroscopic preparations, lies in the fact that the tissues rapidly attain a firm consistence, are not brittle, and the blood coloring matter remains fixed.

Charity in the City of New York.—(Overheard on the street by one of our esteemed subscribers.) Mrs. MacCarty—"Sure, Jimmy gets no better, although I take him every day to the dispensary." Mrs. McFinigal—"And sure what are you going to do?" Mrs. MacCarty—"I am not going a-foolin' any more with those dispensaries, but on the morrow I am going to take Jimmy to an eye specialist and pay him whatever he asks." [!!! Ed.]

OBSTETRICS; GYNECOLOGY; PEDIATRICS

Department Editor

THOMAS S. SOUTHWORTH, M.D.

Collaborators

GEORGE G. WARD, Jr., M.D., GEORGE R. WHITE, M.D.
EDWARD N. LIELL, M.D., WILLIAM B. NOYES, M.D.

The Pathology and Treatment of Surgical Shock.

—E. BOISE (*Amer. Gyn. and Obstet. Jour.*, March, 1896, No. III, p. 336)

In an article on the above subject, the author gives the following *résumé* in the line of treatment:

First, the inhalation of nitrite of amyl, not only while the patient is on the operating-table, but repeated at intervals until the full effect of other remedies is obtained.

Second, the hypodermic injection of nitroglycerin in doses that ordinarily would be almost toxic. With this, if the case be not urgent, rectal injections of hot saline solution repeated as often as the bowel will tolerate it. If the case be urgent, the fluid must be thrown into a vein. This method is of the utmost value.

Finally, sulphate of strychnia administered hypodermically in doses regulated by the indications in each case.

The author also refers to the administration of 1 or 1½ grn. of codeine hypodermically, just before the anesthetic, to anticipate the occurrence of shock, and, in a measure, to prevent it in severe operations.

Hysteria in Children.—J. N. USHER (*Richmond Jour. of Prac.*, X, No. 2)

The symptoms of hysteria in children, as in adults, are capricious, chiefly motor and sensory in character, varying as phenomena referable to the cerebro-spinal or sympathetic nervous systems. There is less tendency to intentional misleading in children than in adults. The symptoms are not so wide in range, but phenomena of the nature of severe spasms, amblyopia, or partial paralysis are frequently observed. Such conditions as temper, screaming-fits, and wind colic may be hysterical; and frequently headache, pains in joints, limbs, or chest, closely resembling genuine disease, have the same origin.

The causes are any agency that tends to lower the stamina of the child, such as heredity, alcoholism in the father, anemia, traumatism, over-indulgence, or improper educational methods. Children of sturdy, healthy parents resist hysterical and other neurotic tendencies.

Abnormal sexual conditions, especially masturbation and bad associations in school, are the chief exciting causes. A slight injury may develop in a child what is really an incipient traumatic hysteria. The only explanation of the pathology of hysteria is some imperfect development of the cerebral centers, and a consequent loss of the inhibitory action of the cortex on the lower centers, causing a child's nervous system to expand more readily to impressions.

Sensory symptoms are most common, and include perversions of the special senses—the vaso-motor, secretory functions and such conditions as vomiting and the mimicry of acute diseases. Hyperesthesias are more common than anesthetics. Motor phenomena include convulsions, and local spasm, as chorea, tremor, twitching of the face, spasm of the glottis, contracture associated with a nervous joint, or local paralysis.

A not uncommon form of hysterical insanity in

children manifests itself by striking, biting, or a generally destructive disposition.

A combination of hysterical symptoms may be observed, such as cough, stammering, night terrors, somnambulism, rapid, irregular, or difficult respiration, and nocturnal enuresis.

Hysteria frequently alternates with epilepsy, but the termination is said by HENOCHE to be, as a rule, true epilepsy.

For treatment only the personal guidance of a family physician—not a specialist—is of value. The child must be subjected to a steady, gentle discipline, enforcing a careful regimen in diet, regularity of sleep, and exercise; in graver cases, removal from home and isolation from friends.

Embolism Complicating Abdominal Section.—

BALDY (*Amer. Gyn. and Obstet. Jour.*, 1896, No. III, p. 321)

Within the past three years this condition has been noticed quite frequently by the author in his surgical practice, and, although at no time has it proved dangerous, still it has invariably delayed the convalescence, and has shown itself to be an extremely painful and annoying affection.

Phlegmasia alba dolens complicating pelvic surgery is looked upon as a matter of great consequence, second only in importance to septic peritonitis and hemorrhage.

The attack begins usually about the third week after the operation; with pain in the hip, followed quickly by swelling of the part, and these spread downward rapidly until the whole leg is involved. In a few days the leg becomes less hard, and the pain is correspondingly relieved. No septic evidence whatever accompanies this condition. More prolonged rest in bed following pelvic operations, the author deems, would tend toward avoiding such a complication.

A Study of the External Genital Organs of the Female.—R. BERGH, of Copenhagen (translated from the German by B. WOLFF, *St. Louis Med. and Surg. Jour.*, March, 1896, p. 137)

The paper refers to the author's experience on the morphological condition of the external genitals of the female, taken from a collection of notes from among 2200 admissions to the female venereal department of a hospital, in an experience of 30 years.

A deficient development of the labia majora, similar to an infantile condition, was noticeable in 18 of the cases. Among many of the negroid races, and in a lesser degree among the Japanese and Javanese, such deficient development is very frequently the case.

In virgins and all young females the labia majora lie closer to each other than in deflowered and older women; they are fuller in stout women, becoming flabby and pendulous in thin and elderly women. The inclination of the pelvis causes a variation in the length of the pudendal fissure, though but little difference in situation.

The clitoris forms the point of convergence for the hairs of the genital region, the hair-streams being directed to it. The approach to the masculine type of hairiness is frequently extending up to the umbilicus is but occasional. Several cases are referred to, those of JALM, BARTHOLIN, and PAULINI, where the length of the hair on the female genitals reached below the knees. Thick and heavy eyebrows usually accompany a strong development of puberals. Dark hair is usually more coarse and excessive.

As to the perineum, the region lying between the vulva and the anus, its breadth depends upon individual peculiarities, as regards the space between the tuber ischii; the medium raphe, nearly always present in men, is much less marked and frequently invisible in women, the perineum in the latter being usually devoid of hair, though well supplied with sebaceous glands.

Bacteriological Study of the Throat in One Hundred and Seventeen Cases of Scarlet Fever.—

G. LEMOINE (*Bull. méd.*)

The streptococcus is the only micro-organism which is constantly found in scarlet fever. In 52 observations upon the throat lesions of scarlet fever, both simple and complicated by other infections, such as measles and mumps, the streptococcus has been found in every instance either alone or associated with other micro-organisms.

LEMOINE concludes as follows: The early throat lesions of scarlet fever are streptococcic lesions. This micro-organism is met most frequently in the pure state in the interior of the tonsil. Sometimes there is, from the beginning, a combined streptococcic and diphtheritic infection. This double infection is one of very great gravity. The association with the bacillus coli appears to be, in certain cases, the source of an infection as serious as that which results from the association with the bacillus of Löffler.

Finally, the streptococcic origin of the throat lesions of scarlet fever does not appear to be peculiar to that disease, since the pharyngeal symptoms of scarlet fever appear to be of the same nature as those of a number of other throat lesions.

The Influence of Influenza on Pregnancy, Labor, the Puerperium, and the Female Genitalia in General.—G. LÉGUEL, of Paris (*Centrbl. f. Gyn.*, 1896, No. 13, p. 361)

The author endeavors to determine the relation between influenza and several complications of labor and the puerperal state. From a large number of personal observations he has drawn the following conclusions:

1. Women are not more disposed to take grippe than men except during the time of puberty, *i.e.*, between 14 and 20 years.
2. At the menstrual epochs women are more liable to contract the disease than at any other time.
3. Grippe disposes to hyperemia of the uterus, menorrhagia, metrorrhagia, and hypersecretion from the vagina.
4. The menorrhagia due to grippe is sometimes so severe as to threaten the patient's life.
5. Grippe can produce endometritis, pelviperitonitis, inflammation of the adnexa, hematocele, and sometimes cystitis and nephritis.
6. It retards the growth of both benign and malignant neoplasms.
7. It shortens gestation if contracted late.
8. If contracted early it produces abortion.
9. Labor seems to be less energetic than otherwise, and the membranes often rupture early as the result of the coughing.
10. In some cases the disease has no influence upon the genitalia, although it may leave behind lesions of other organs.
11. Owing to suppuration in other organs grippe can simulate puerperal fever so that the differential diagnosis is very difficult or impossible.
12. New-born babies are seldom affected; and the course of the disease is usually mild. In exceptional cases the disease may prove fatal, owing to complications in the lungs.

SOCIETY MEETINGS

AMERICAN ORTHOPEDIC ASSOCIATION

TENTH ANNUAL MEETING

Held in Buffalo, May 19, 20, and 21, 1896

ROYAL WHITMAN, M.D., of New York, President

[Special Report to the BULLETIN]

(Concluded from page 828)

THIRD DAY

Mechanical Support for Flat-foot.—Dr. JOHN C. SCHAPPS, of Brooklyn, presented in this paper a method which he had devised for making steel soles for flat-feet. He said that he had observed that, after hammering out a steel sole to correspond to the arch of a well-developed adult foot, the anterior and posterior halves of the arch were not very different, and that, if these halves were made the same, the shape resembled a portion of a convex surface of a cone, with the apex directed toward the outer side of the sole, and the base to the inner side of the foot. From this plate he had had plaster casts made, and, from these, iron dies. With these dies any mechanic could make steel plates, from which soles were easily cut for right or left feet, high or low, or large or small feet. The patient stands on the plate so that the arch of the foot is pressed upward as far as is bearable. The contour of the back and sides of the foot is, by means of a file, scratched on the plate, together with the distance it is desired the support should extend forward. This outline must be corrected by making the sole considerably narrower, especially in front, and, when the plate inclines away from the inner side, by extending it in that direction, so that there may be metal enough to be bent up against the foot. Another contour is taken on cardboard, and trimmed to fit the sole of the shoe at the front, outer side, and back, and is made wide enough at the arch to come well up on the inner side. With this pattern and the plate, already marked, and a pair of tinsmith's shears, the proper shape could be readily given to the plate. The curved line representing the inner edge of the arch should be located just below the scaphoid and the head of the astragalus. The inner edge of the plate will now have to be hammered over an anvil, and given the proper curve, inward or outward. It should be nearly vertical as the patient stands on the plate. The speaker said that the plate could be usually worn in the ordinary shoe, and could be changed from one shoe to another. The Whitman flat-foot brace could be cut from the same plates. The best covering for the plate he had found to be hard rubber, vulcanized on. The edge of the plate should first be thinned, and the material applied should be about 20-gauge.

Some Apparatus for the Treatment of Pott's Disease.—

Dr. SCHAPPS also presented a convenient wheel-cot designed for the purpose of maintaining uninterrupted recumbency with regulated pressure and traction, if necessary. He said that in the upright position the diseased part of the spine was subject to the weight, not only of the parts situated above, but also to that of the parts which, though situated below, were suspended from above. It was also subject to muscular action exerted between the parts above and below, to constant jarring from voluntary muscular effort, and to the great pressure of reflex muscular spasm—"nature's automatic

splintage." The energy required to hold the spine rigid and the lower limbs in a continuous state of elastic tension to break shock, besides causing pressure, was exhausting, and lowered the general and local recuperative forces. It was not only futile, but decidedly injurious to interfere with the respiratory movements of the chest and abdomen. In dorsal disease we were dealing not alone with the spine, but with the thorax also, of which it was a part. It was evident that the sternum should be used as a base from which to make forward pressure on a dorsal kyphos, that both the posterior or spinal and the anterior or sternal supports of the upper mass should be kept under it, and that the lateral pressure on the chest should be avoided. For the treatment of Pott's disease in the upright position, the author exhibited the brace which he used—a combination of the Taylor brace posteriorly, and anteriorly a light, rigid support, which makes pressure only on the parts which can convey it to the spine, and that too without interfering with respiration. Abdominal constriction was also avoided. In cases of actual or prospective chest protrusion, he said that he used the sternum as a lever to act on the spine.

Dr. KETCH said that in certain cases of spinal disease there did seem to be needed something more rigid than the usual apron, and for such the work of Dr. SCHAPPS and Dr. WHITMAN was to be commended. He would like to know the experience of others regarding the manual treatment of "pigeon-breast."

Dr. MCKENZIE said that he had used it in adolescents, and had found that the anterior deformity improved quite rapidly.

The Treatment of Pott's Paraplegia, with a Report of Two Cases.—Dr. LE ROY W. HUBBARD, of New York, presented a paper on this subject, in which, after reviewing the historical aspects of the treatment of this condition, he spoke of the results obtained from a circular-letter addressed to the members of the association to elicit information. Twenty-three out of the 34 who replied were in the habit of using some form of mechanical support in all these cases, while 8 used no support. Twenty-nine insisted upon absolute recumbency until there was some return of power; nine thought they had seen benefit from large doses of iodide of potassium. Only five had operated on these cases. One made incontinence of urine and feces a positive indication for immediate operation. The longest reported period of paralysis with complete recovery without operation was 14 years. The author concluded that the important points in the treatment were, immediate, thorough, and efficient mechanical support to the spine, absolute recumbency until power returns, and measures directed to the improvement of the hygiene and general condition. He believed that a careful trial of this treatment would result in complete cure in almost every case, and in the majority in a short time. Operative interference was rarely demanded, and only after a long and faithful trial of mechanical means had failed.

Dr. C. C. FOSTER, of Boston, said that the kind of paralysis that he most dreaded was that sudden and severe form arising from fracture of the atlas in cervical disease.

Dr. KETCH said that recently he had seen two cases of cervical Pott's disease with paralysis affecting the arms only. In cases of this kind his experience had not been that there was a natural tendency for the paralysis to recover.

Dr. WEIGEL said that he had happened to see

more cases of Pott's paraplegia among adults than among children, and comparatively few of them had recovered.

Dr. RIDLON said that his experience had been that where the sphincters were involved the prognosis was far from good.

Dr. HUBBARD, in closing, said that in two cases coming under his observation with involvement of the sphincter, recovery had taken place, and this had been the experience of others with this class. Dr. Young had stated in his book that incontinence of urine did not exist except when the lumbar enlargement was involved, yet in his own two cases the disease had been located in the upper dorsal and cervical regions.

Congenital Defects of the Long Bones; a Report of Cases and Operations.—Dr. B. E. MCKENZIE, of Toronto, presented a number of specimens in connection with this paper, together with reports of 10 cases. He said that the first case of total absence of the tibia had been reported by BILLROTH in 1861, and that eight cases of this kind had been reported since then. A number of cases of absence of the fibula had been reported by HOFFA. There were on record six cases of congenital defect of the ulna, and six of partial defect of the radius. The speaker said that in six of the limbs presented there was an appearance like a cicatrix—an "umbilication," which suggested a possible prenatal compound fracture.

Congenital Club-hand; Report of a Case Treated by Operation.—Dr. C. E. THOMSON, of Scranton, present by invitation, reported such a case, and presented photographs of the same. The child belonged to a rather remarkable family. The first child had double club-foot, and was born without arms or fore-arms. The hands were perfectly formed, and were attached to the shoulders. It died shortly after birth. The second and third children were perfectly formed and healthy. The fourth child was perfectly developed, but still-born. The fifth child was the subject of this report. The sixth child also had double club-foot, and was without arms and forearms, the hands being perfectly formed and attached to the shoulders. Several more healthy children completed the family. The subject of the report, when seen by the author, was a girl of 13, and well developed, except in the forearm. There were flexion and pronation, and displacement of the carpal bones to the radial side. The operative procedures were then described.

The Treatment of Club-foot.—Dr. A. M. PHELPS, of New York, read a paper on this subject. He said that he preferred to begin at the earliest possible moment to reduce the deformity by manipulations. If after a reasonable length of time—say, three months—no further progress was made, it was time to operate. This treatment should consist in a sufficiently extensive operation to allow of super-correction at the time of the operation. In his 343 operations there had been only 5 per cent. of relapses. In the last 182 operations there had been no mortality. We should not carry on mechanical treatment for years, but should resort to operation, as the results were equally good, if not better.

Dislocation of the Patella Treated by Operation.—Dr. JOEL E. GOLDTHWAIT, of Boston, reported two cases, and exhibited the photographs.

Torticollis Due to Adenoid Vegetations and Chronic Hypertrophy of the Tonsils.—Dr. ARTHUR J. GILLETTE, of St. Paul, reported three such cases. He said that his attention had been first called to this as a factor in a case of congenital wry-neck, seen some

years ago, and in which there was no other discoverable cause. The torticollis had been noticed by the mother when she took charge of the child, 10 days after its birth. The sterno-mastoid was prominent on one side. The labor had been normal. The child was noticed to be a mouth-breather, and, it was said, had always given evidence of difficulty in breathing through the nose. Examination showed complete nasal stenosis in addition to hypertrophy of the tonsils. After removal of the vegetations, division of the sterno-mastoid effected a permanent cure. In the third case, the removal of the adenoid vegetations alone effected a cure.

A Report of Some Cases of Unusual Congenital Deformities.—Dr. JOHN RIDLON, of Chicago, presented reports and photographs of the following remarkable deformities: (1) What appeared to be intra-uterine poliomyelitis; (2) recurvated knees, with knock-knee, double club-foot, spina bifida, incontinence of feces, and convergent squint; (3) congenital rachitis, showing the enlarged ends of the bones, and true bow-legs, and also a deficiency in the formation of the skull; (4) congenital amputation of both legs and knees, and of the left arm at the elbow, without known cause; (5) two cases of constriction bands—around the right ankle and left great toe. Several other interesting cases were included in the report.

A Report of a Family of Anomalies;—Dr. L. A. WEIGEL, of Rochester, in a paper with this title, gave the history of a family in which five out of seven children showed some form of paralysis, without discoverable local, general, or hereditary cause.

Dr. S. KETCH, of New York, was elected president of the Association for the ensuing year.

NEW YORK ACADEMY OF MEDICINE

SECTION ON NEUROLOGY

May 22, 1896

J. ARTHUR BOOTH, M.D., Chairman

Some Points on the Control of Epilepsy by Bromide.—Dr. LOUIS FAUGÈRES BISHOP read a paper on this subject. He said that in a small minority of cases it was necessary to relinquish bromide in the treatment of epilepsy. Until it has proved otherwise in an individual case, the bromide of potassium would be found the best drug. It should ordinarily be divided into three equal doses, given in aqueous solution by itself, after meals. The adjuvants and correctives should be given separately, in order that the dose of bromide may be varied from time to time to meet the needs of the patient. The only way the doses could be accurately regulated was by keeping the bromide in one's own hands. It was seldom possible to give a sufficient quantity of bromide for any length of time without careful attention to the alimentary canal. The physician should keep at hand a 1:4 solution of bromide of potassium, and should dispense a properly graduated mixture of bromide to the patient in quantities of 4 oz. In this way it was easy to observe at each visit, not only the regularity with which the patient took his medicine, but also to adjust the dose without requiring large quantities of medicine to be thrown away—an item in cost alone which was of considerable importance to many patients when it was considered for what long periods of time it was necessary for epileptics to take this drug. The general practitioner commonly made the mistake of giving too little bromide.

Dr. A. D. ROCKWELL said that in a considerable

experience with epileptics, and with the use of bromides, he had been struck with two or three facts. One of these was the remarkable tolerance of the system to the use of the bromides. Another was that bromides given in conjunction with other remedies were oftentimes more effectual than when given alone. Dr. SEGUIN had first suggested the use of chloral with the bromides, and he had been convinced that this mixture acted more efficiently than the same dose of bromide unassisted by chloral. In epilepsy we could never be sure that the case was cured until there had been an interval of at least two years without an attack. Some years ago a patient had come to him who had been for five years under the care of a general practitioner who had been prescribing the bromides in doses of 10 grn. three times a day. As a result of this timid dosage, very little had been accomplished. He had at once ordered twenty to twenty-five grn. of bromide of potassium, with two or three grn. of chloral, three times a day. He had treated her for seven years with the bromides. During the treatment she had certainly been unpleasantly affected by it, and at times it had produced a suicidal tendency. Sometimes the attacks had disappeared for 12 or 18 months, and one time for 23 months. This discouraged him somewhat, but the treatment had been resumed and continued for 28 months more. It was now about 10 years since the treatment had been discontinued, and she had been entirely well, both mentally and physically. He had at present under his care a little patient who had epilepsy resulting from pressure at the age of nine months. She had been put upon mixture of the bromides and cannabis indica, and since last October she had had no violent attacks of epilepsy, although she had had slight attacks of *petit mal*. A pretty large experience had convinced him that central galvanization and faradization were important aids to the medicinal treatment.

Dr. A. W. FERRIS said that he was glad to hear the reader of the paper emphasize the importance of large doses of bromides. He recalled a case of a young man, who was first known to have epileptic convulsions when 14 years old. He was under treatment constantly for four years with large doses of bromide, and when first seen by the speaker he was unable to perform any mental act of any kind without provoking a convulsion. After treatment for four years he was able to finish school and college, and had since then been actively engaged in the practice of medicine. This was the only case that he knew of in which an absolute cure could be claimed.

Dr. BROWN said his experience with epileptics had been largely among the insane in hospital. Where large and continued doses had been given, the number of convulsions had been diminished, and the patients made comparatively comfortable for long periods of time. Various new systems of treatment had been tried in the hospital, but eventually they had returned to the old treatment by bromides and regulation of the diet. If the patient's diet were not carefully regulated, it had been found that the number of convulsions would almost certainly be increased.

Dr. PARSONS said he had been accustomed to give to epileptics about thirty grains of bromide, three times a day. Some of the more recent cases only had convulsions at intervals of a few weeks. In these cases it had been his practice to discontinue the bromides until the return of the convulsions, and then to continue them for several weeks. By adopting this plan the patient's mental condition was on

the whole improved. In some cases these large doses might be given steadily for long periods of time, and the only effect noticed would be that the severity, though not the number, of the convulsions would be diminished.

Dr. PEARCE BAILEY said that he thought in a great many cases it was unwise to institute the bromide treatment. These were the cases presenting a history of only one or two fits, and in which there was considerable uncertainty as to whether they would ever develop true epilepsy. In such cases it was well to attend to the alimentary canal, and employ purely symptomatic treatment before resorting to the bromides.

THE CHAIRMAN said that he had not used a grain of bromide of potassium for five years, having used as a substitute the sodium salt exclusively. There were two reasons for this, viz.: (1) There was less gastric irritability; (2) larger doses of the sodium salt could be given without the development of troublesome acne. Each case was a law unto itself. In every case, a record must be kept, by someone other than the patient, of the number of times, and the character of the attacks. This was an important guide in regulating the dosage. Some of these cases only had fits at a certain period in the 24 hours. In such cases the largest dose of the bromide should be given four hours prior to the time of the expected attack. In this way the lesser amount of bromide could be made effective. He never intrusted the administration of the bromide to the patient. It had been his custom to use measures which had been accurately graded according to the metric system. He had also followed Dr. SEGUIN's practice of using chloral with the bromide, because he had found that the bad effects of the bromide treatment were not so easily developed, and such large doses of bromide were not required. He had had patients go three and even three and a half years without an attack, and yet not be cured. If the reflexes in the patient's palate were found to be absent, one could be certain that he was fully under the control of the bromide—this should be the guide. It had also been his custom to give female epileptics an extra dose of bromide just before the menstrual period, or just before going to an entertainment. This latter point was deserving of careful attention.

Psychic Epilepsy.—Dr. ALBERT WARREN FERRIS read a paper with this title. The theory of arterial spasm, causing local cerebral anemia, was a plausible one. NOTHNAGEL placed the center between the lower portion of the pons and the upper portion of the medulla oblongata, as a result of experimental investigation. The less the arterial spasm, the less the complementary hyperemia of the other centers. GOWERS rejects this theory, however, and concludes that the cortex of the cerebral hemispheres is the seat of the discharge. Neurologists, the speaker said, agree that there is an anatomical relation between epilepsy and insanity. Among the few cases of psychical epilepsy reported had been included imperfect consciousness, dreamy states—in short, psychical disturbances preceding, displacing, or succeeding the convulsions. Instead of the fit, these patients are thrown into fits, for example, of violent laughter or shouting. The following was one of several illustrative cases cited: A young man of 21, with good family history, received a fall on his head when 5 years of age and since that time had never fully regained his mental balance. A second fall on the head occurred when he was 16 years old, and since then he had experienced severe headache in the parietal region, near the seat of the

scar. At times he would become maniacal, profane, and even violent. He had no clear recollection of what occurred during the attacks. It was interesting to note that this case, which was under observation of Dr. M. ALLEN STARR, had been cured by trephining over the original site of the injury to the head. Attacks of psychic epilepsy naturally assume much importance from a medico-legal standpoint. It was a hard task to decide whether an epileptic was responsible for crimes committed. It was well known that an epileptic would perform automatically very complex acts which had the appearance of volition. In order to form a proper judgment they should be kept for some time under the observation of a competent alienist.

Dr. ROCKWELL said that he had noted the psychical origin of epilepsy more particularly in connection with the morbid fears of neurasthenics. Many of these morbid fears seemed to him to merge into epilepsy. He recalled a case in which for years a man had been seized with an irresistible fear whenever he contemplated leaving town, and this was accompanied by an undefined epileptic attack. In another case of marked morbid fears, the latter disappeared on the development of epilepsy. Gradually the epilepsy had disappeared, and the morbid fears had returned. He had found that the bromides did not appear to be of much service in this class of cases. His best results had been obtained from a general tonic treatment.

Dr. BISHOP said that at one time he had had under observation a case of double consciousness. A common form of psychical epilepsy was the mania following an attack of epilepsy. He had been puzzled at times to decide if some cases of psychical epilepsy were not complicated by hysteria.

Dr. BROWN said that he had seen a few cases in which the maniacal attack had taken the place of the usual epileptic paroxysm, and in these cases very unusual means had been required to control the patient. He had recently heard of a case in which very serious injury was done to a family by a patient supposed to be suffering from epilepsy and hysteria. The patient claimed that she knew nothing at the time regarding the acts that she committed. He had always been inclined to think that in this case the chief factor had been hysteria.

Dr. PARSONS said that the typical cases of psychical epilepsy were generally conceded to affect the mind more deleteriously than the ordinary cases of epilepsy. They were apt to terminate in a short time in dementia.

THE CHAIRMAN said that he had only seen a very few cases of psychical epilepsy. One case was that of a man who would suddenly disappear from home for a number of days. After a time it was discovered that preceding each one of these attacks or wandering spells, he would perceive a peculiar sickening odor. The speaker said that he hardly thought that the psychical conditions of neurasthenia could be classed as the same, or even as closely related to psychical epilepsy.

Dr. FERRIS, in closing, said that we might distinguish between the psychical manifestations of neurasthenia and those of epilepsy by the fact that the neurasthenic did not forget his feelings and fears—indeed, he had a painfully accurate and retentive memory—whereas the epileptic forgot what occurred during his attacks. He certainly thought that psychical epilepsy did damage the brain more than did ordinary epilepsy. He would limit the term, "psychical epilepsy" to cases in which there was no *petit* or *grand mal*, but, instead of these, a maniacal outbreak.

SECTION ON LARYNGOLOGY AND RHINOLOGY

Wednesday Evening, May 27, 1896

JAMES E. NEWCOMB, M.D., Chairman

Dr. F. J. QUINLAN presented a pair of adenoid forceps for cutting and scraping. They were in the shape of a cone, and had the advantage of occupying a small space in the rhino-pharynx.

Dr. W. F. CHAPPELL presented a base for the application of medicines to the nasal cavity and the pharynx. It was the oleostearate of zinc, and had the advantage of being a semi-fluid material not susceptible to the ordinary changes of temperature, could be applied alone or with various medications, and clung to the surface to which it was applied. It could also be used for intra-tracheal application.

Dr. GLEITSMANN said he found the forceps presented by Dr. QUINLAN very useful, as they occupied but little space and allowed of the removal of larger growths than other forceps.

Dr. R. C. MYLES presented a case of a woman upon whom he had operated 10 days before, opening the frontal sinus on the left side. There was a peculiar narrowing at the lower portion of the sinus near the opening of the infundibulum, and the back wall projected forward. There was now a polypoid growth near the floor of the infundibulum which was not there before.

Dr. J. W. GLEITSMANN in presenting a case said it was of interest as there were but few cases in which it was possible to see the opening into the sphenoidal sinus. This case had come to him last week complaining of nasal obstruction; the nose was filled with crusts, the removal of which revealed the sphenoidal sinus. The sinus was four inches from the alæ of the nose. Other than this the case was of but little interest.

Dr. WRIGHT said he and Dr. GLEITSMANN had differed before as to whether the ethmoidal sinus could be seen, and now he would have to say that he had a case in which he could see the sinus; the middle turbinated bones were greatly shrunken, and it was possible to see and probe the sphenoidal sinus.

Dr. R. C. MYLES said, as to measurements to the sphenoidal sinuses, he had found the average from $2\frac{1}{2}$ to $3\frac{1}{4}$ in., as measured from the center of the septum or from the middle of the alæ. He had found it $4\frac{1}{2}$ in. to the back wall, but this was obtained by bending the end of the probe a little.

Dr. J. E. H. NICHOLS presented two cases, the first, an epuloid growth upon the superior maxilla. The patient wore a plate and it was possible that irritation from it caused the growth. There was no pain, but the tumor was growing rapidly.

The second case was a girl in whom there was no definite history of hereditary syphilis, and the condition simulated lupus. About five months ago there had been noticed a discharge from the nose. There were perforation of the soft palate and ulceration with partial destruction of the cartilaginous and bony portions. He had not had an opportunity to put the patient on the iodide treatment.

Dr. CHAPPELL presented a second case, a man who had been before the section on a previous occasion for the purpose of diagnosis. Since that time he had had to have a tracheotomy performed on account of a carcinoma of the larynx. He presented the case because he thought the section would be interested in it.

Dr. WRIGHT said the woman whom Dr. CHAPPELL had presented had come to his clinic at one time in a very reduced condition. She had improved rapidly upon iodides, but developed nervous symptoms and had been transferred to that department.

The Chairman, Dr. NEWCOMB, presented a woman who was employed at the Roosevelt Hospital in the laundry. Five years before she had "blind boils" and had been troubled with her hair dropping out in the spring. Six months ago she had a sore throat, caught cold, got worse, began to cough, had some postnasal dropping and nasal discharge. The sputum was free from bacilli. The uvula was long and a portion had been excised, a part of which had been sent to Dr. WRIGHT and part he examined himself. There were round-cell infiltration and thickening of blood-vessels with some new connective tissue. The patient had been treated with lactic acid, but, after microscopical examination, had been given mercurial inunctions and small doses of iodide, the patient being intolerant of the latter. There was infiltration of the epiglottis, uvula, soft and hard palate, and though the amount of potassium iodide administered was small yet the infiltration was much less.

Dr. SIMPSON said in regard to Dr. NICHOLS's case that in epulis the prognosis should be guarded, as it was likely to become malignant. He mentioned a case of a patient about forty years old in whom a seemingly benign tumor had become malignant with fatal result.

Dr. BERENS said he had seen a case of necrosis similar to that presented by Dr. CHAPPELL. He had discovered a chestnut worm in the tonsil.

Dr. QUINLAN asked why Dr. WRIGHT had suspected that the case presented by the Chairman was a case of lupus.

Dr. WRIGHT said it looked like a case of lupus, but the microscopical examination had proved it to be specific. He thought that often cases of suspected lupus would be found to be specific when put upon the iodide treatment.

Dr. SIMPSON asked if the case Dr. CHAPPELL presented with carcinoma had been examined microscopically. It had.

Dr. MYLES said the case presented by the Chairman looked like a case of syphilis.

Dr. NEWCOMB said that in cases of lupus when they were put upon specific treatment they usually got worse and suffered more pain. This patient was hopeful and always thought she was getting on well, and was pleased with what was being done for her.

Dr. BEAMAN DOUGLASS presented a case of primary carcinoma of the inferior turbinated bone. He said that the literature gave a number of cases, but not many were confirmed by microscopical examination. There were only two cases reported previous to this that were primary and intra-nasal in origin. The patient presented gave a negative history on the mother's side, but the father had had a fetid discharge from the nose, disease of the antrum, later the right eye involved, and frontal sinus disease. The patient was 31 years old; was always nervous; noticed nasal trouble five years ago; now there was a mucous discharge from the left side; some bleeding after picking; and a year ago had a severe hemorrhage. Some pain developed a year ago, the lachrymal duct was stopped, the skin was not discolored, the patient was weak, but had not failed much. The right nostril was normal. There was an ulcer on the left side which looked much like a trophic rhinitis when scab was removed. The pathologist had reported that it showed the characteristics of carcinoma.

Dr. HOLBROOK CURTIS gave the history of a young woman 30 years old, who had come under his care for so-called rose influenza. She had been unable to pass a flower-stand without being pros-

trated; had been nearly all over the world in search of relief without obtaining any. It had occurred to him that he might treat her by suggestion. He told her that if she desired he would give her hypodermic injections of the extracts of the pollen and leaves of different flowers. He had begun with the rose, the lily-of-the-valley, the violet, and others. In about three months she was able to stand the presence of roses. He had begun this treatment over a year ago, and at the present time she could sleep in a room containing any variety of flowers. He left it to the opinion of the members of the section whether the success was due to suggestion or to some virtue in the hypodermic injections. Dr. CURTIS made these remarks preparatory to a possible communication regarding experiments on hay fever.

Some Remarks on Nasal Obstruction, with a Description of a Naso-manometer; Naso-Pharyngeal Auscultation.—Dr. JONATHAN WRIGHT read the paper upon these subjects and said that the statement of the patient could not be relied upon for the detection of nasal obstructions, for they were often misleading, the patient complaining of something else. In cases of obstruction due to new growths the development was so slow that the patient had probably not experienced any inconvenience from it. As there were so many circumstances interfering with a correct diagnosis it had occurred to him that a naso-manometer might be constructed, and he presented one that he had made and found of service. It consisted of a graduated U-shaped tube, partially filled with colored liquid, to which was attached a rubber tube, and to this a small metal tube. The small metal tube was placed at the patient's nostril, and by comparing the varying height of fluctuation of the liquid when the patient inspired the patency of the two nasal canals could be compared. It was also possible to establish a relative standard for normal respiration, which would aid in detecting nasal obstruction. The naso-manometer could be hung on the wall or attached to the stand on which other instruments were kept.

Dr. WRIGHT called attention to the fact that the nasal alæ often formed an obstruction to respiration. This might be due to paresis of the nasal muscles of respiration; and he had been able to cure cases of this kind.

In children, adenoid growths were often the cause of nasal obstruction. The child, if it could make statements, could not aid in leading to a diagnosis; and in some cases there were very slight symptoms of obstruction. He thought that auscultation could be used with benefit in these cases. By placing the stethoscope on the back part of the cheek it was possible to detect a change in the respiration in cases where there were adenoid growths.

Dr. WRIGHT spoke of bony cysts in the nares, and said the idea had long existed that they were due to hypertrophy of bone and folding over, as it were, of the outgrowth of bone. This did not seem to explain it, for there were very few glands in the cysts; it was hard to conceive of the outgrowth of bone connecting with the bone above to form the cyst, and then none had been seen in the process of development. He thought the cysts were due to rarifying process in the bone itself. They occurred quite often in chronic cases, and nearly always were found in women.

Dr. GLEITSMANN said he had used the naso-manometer and it had proved fairly successful, and he thought it would be especially useful in discovering obstruction in the posterior portion of the nares.

Dr. WRIGHT had also called his attention to nasopharyngeal auscultation, but although he had not had much time to try it he had been able to detect a varied sound in case of adenoid growths.

Dr. RICE said a number of years ago Dr. ANDREW H. SMITH showed him an instrument similar to the one presented by Dr. WRIGHT, but he thought it had never been perfected. He was pleased with the happy way the writer had put the symptoms of nasal obstruction as stated by the patient. The point in regard to obstruction from the dropping down of the alæ was one that was not appreciated. The septum of the nose without deviation or ecchondroses might be so thick as to virtually cause nasal obstruction.

Dr. KNIGHT said, in reference in Dr. WRIGHT's statement, that no intermediate condition has been seen in cysts that formed in accordance with MACDONALD's theory; that when he wrote his article he had a case in which there was a tubular appearance of the bone, anterior and posterior openings being present, but he now thought it was a case in which the bony wall of the cyst had become disintegrated.

Dr. NEWCOMBS said he had seen a case in which there was a curving inward of the middle turbinates, but he had not thought of it being an intermediate stage of cyst formation. He had used auscultation in diagnosing obstruction and he had heard sounds he could not describe. He had not had enough experience to determine much from it yet.

Dr. A. RUPP said he recently treated a case of rheumatic unilateral facial paralysis in which the nasal muscles were implicated and nasal respiration of the side affected impeded. As the paralysis was recovered from, the patient himself had noticed improved respiration through the nostril that had been faulty. This was an instance which disproved this anatomical witticism of Dr. O. W. HOLMES as quoted by Doctor WRIGHT.

The Constitutional and Local Causes of Nasal Hemorrhage and the Methods of Controlling it.—Dr. CLARENCE C. RICE read the paper on this subject and said dangerous cases of hemorrhage were not common, but they came occasionally and were hard to treat. The etiology might be classed as due to constitutional and local conditions and traumatism. He had found that the dangerous cases were those due to constitutional changes, change in blood-pressure, change in the blood-vessels, and change in the blood. There was often a local condition in the nose that added to the disposition to nasal hemorrhage. Cases of hemophilia he did not think were common. Often there were renal, cardiac, and other conditions present that produced conditions favoring bleeding. Mental conditions also favored bleeding. Nose-bleeding was quite common in boys about the age of fourteen or fifteen.

It was rare to see nasal hemorrhage where the mucous membrane was moist. It was only necessary to mention nasal hemorrhage from trauma. There were some unusual cases due to varicose veins of the nose and some due to over-exertion. All were familiar with the nasal hemorrhages due to acute diseases, febrile conditions, etc.

In treating nasal hemorrhage it was important to locate the bleeding-point, and this was generally upon the septum or the floor of the nose. Sometimes the spot was high up and hard to see. He had seen only one case of bleeding from the turbinated side.

It was very important to treat the cause; if due to renal disease treat it, if cardiac treat that, etc. It was important to have a smooth nasal sep-

tum, and for this it was an excellent plan to use friction as described in a previous paper. Posterior nasal plugging might be of service in general practice, but in the hands of an expert it was not necessary.

With the aid of a speculum and a good light the bleeding-point could be located, and compressed with antiseptic gauze cut in strips. If bleeding due to trauma and not secondary, douching with hot Seiler's solution was excellent. Cocaine would be an ideal remedy were it not that it was followed by a determination of blood to the part. A tampon of cocaine was better than a spray. The galvanic cautery might be applied to the bleeding-point. If there was much hemorrhage anterior plugging could be resorted to and this could be most easily done with cocaine. It was well to begin plugging on the floor and build up and forward.

Dr. WRIGHT said he thought Dr. CHAPPELL did not mention post-nasal adenoids in children as a cause of hemorrhage.

Dr. MAYER said he thought that it would be frequently found that boys about fifteen that had nose-bleed were masturbators. Iodoform gauze was quite a favorite for plugging. He thought it better to introduce a small catheter, attach a string, pull it into the nares after attaching the gauze, and then pack. He had seen a case of severe hemorrhage from both nostrils caused by a sarcomatous growth.

Dr. A. RUPP asked Dr. C. C. RICE whether his quotation from BOSWORTH's book coincided with the experience of all other specialists. His own experience contradicted the opinion that when constitutional diseases are present the nasal hemorrhage is usually from both nostrils. When bleeding from the nose has continued for a time the blood often regurgitates around through the other nasal passage, thus giving the appearance of bleeding from both sides of the nose.

Dr. COFFIN said he thought in a case of hemorrhage sufficiently severe to demand a posterior plug that we had but little time for cocaine, and, in fact, that the cocaine would be so much diluted by the blood as to be of little use.

He reported two cases in which severe secondary hemorrhage had followed the application of the galvano-cautery to the posterior end of an inferior turbinated bone.

He said he had found the best plug to be a conically-shaped cotton plug, made by taking sufficient absorbent cotton, tying string about its middle, and then doubling the cotton upon itself and the string, and taking two or three half-hitches about the free ends of the cotton. The small end to be drawn into nose.

The best styptic he had found to be a sat. sol. of the aceto-tartrate of alum.

Dr. GLEITSMANN said he had used punk to stop nasal hemorrhage and found it quite useful. It absorbed moisture, and in 24 hours could be easily removed.

Dr. QUINLAN said he found chromic acid excellent. It could be fused on a probe and applied to the bleeding part. He could not value it too highly. It had advantages over all other agents that he knew.

Dr. PHILLIPS said he thought the writer had omitted to mention internal treatment in these cases, such as ergot, ergotine, etc.

Dr. RICE said he simply quoted Dr. BOSWORTH on hemorrhage from both sides of the nose in constitutional diseases. Most of his cases were unilateral. He had mentioned internal medication.

ONTARIO MEDICAL ASSOCIATION

SIXTEENTH ANNUAL MEETING

Held at Windsor, Ont., June 3 and 4, 1896

Dr. F. LeM. GRASETT, Toronto, President
Dr. J. N. E. BROWN, General Secretary

[Special report to the BULLETIN]

The meeting of the Ontario Medical Association, at Windsor, was not a success in point of attendance. Only 109 members signed the roll and paid the annual fee. The location of the place of meeting, at the extreme southwestern boundary of the province had, doubtless, much to do with the lack of attendance. However, those who did attend were well repaid; the papers read were above the average in interest, and the discussion at times animated. The proximity of Windsor to the American border will account for the large number of visitors in attendance from "the other side." Among them were Drs. MCGRAW, METCALFE, CARSTENS, and LONGYEAR, of Detroit; Dr. MACLEAN, of Ann Arbor; Dr. HANNISTON, of Cleveland; and Dr. MANN, of Buffalo, a delegate from the New York State Medical Association. The medical profession of Windsor provided a generous program of entertainment, including the freedom of the street railway lines, a moonlight excursion on the Detroit river, a visit to the Detroit hospitals and the Detroit Art Museum, closing with a street-car trip to the historic town of Sandwich. It is needless to say that this bill of fare was too extensive for general participation; still ample enjoyment was indulged in to add zest and variety to the meeting, and to make it an occasion of social as well as of scientific interest. An address of welcome was read at the opening by Alderman WEAR, on behalf of the Mayor and Corporation; the first time in its history, as the President remarked, that the association had been thus honored.

FIRST DAY—MORNING SESSION

The Treatment of Puerperal Sepsis.—Dr. H. T. MACHELL, of Toronto, read a paper on this subject. An early diagnosis of sepsis, he said, was essential to timely treatment. He emphasized *uterine tenderness* as a danger signal which should always be heeded when it followed labor. Continued elevation of temperature should never be disregarded during the puerperium. Offensive lochia was a symptom that occurred too late to be of practical value. The treatment of puerperal sepsis is mainly local. He relied upon exploration with the aseptic finger, intra-uterine douches, curetting, and light packing of uterus with iodoform gauze. He was of opinion that in nearly all cases of sepsis the infection is conveyed to the genital tract by the attending physician or nurse. An unrepaired perineum was often the seat of the septic absorption.

Dr. ALBERT A. McDONALD, of Toronto, thought that the physician was too frequently assumed to be responsible for the occurrence of puerperal sepsis. He does not employ routine douches before or after labor, except in hospital and other cases that are uncleanly in their habits. He always employed the intra-uterine douche *before* curetting, and preferred an irrigating curette.

Dr. HANNISTON, of Cleveland, said that accoucheurs and other attendants were often unjustly held to have conveyed septic infection to patients when, not uncommonly, the source of infection was incidental to patients themselves. A unilateral pus-tube, for example, may complicate pregnancy and

set up sepsis after labor. He thought immediate repair of a lacerated perineum should be *legally* incumbent upon a practitioner; while immediate repair of a lacerated cervix should be effected where at all practicable. He believed some of the most fatal cases of puerperal sepsis were due to lymphatic infection originating at the site of cervical laceration. In those cases uterine tenderness and other usual symptoms were often wanting. Dr. BRAY, of Chatham, here asked the speaker whether it might not be difficult always to know whether the cervix was lacerated, especially in minor lacerations. Dr. HANNISTON replied that if the uterus was well contracted, a flow of red or arterial blood might safely be assumed to come from a laceration of the cervix.

Dr. WELFORD, of Woodstock, said that a short time ago he did an ovariectomy on a patient five months pregnant. Five days afterward premature labor occurred, and on the eighth day he found his patient with a temperature of 103°. He at once employed local irrigation and curetting, and in 18 hours the temperature was normal and continued so during convalescence.

Dr. MACHELL, in closing the discussion, said, in reply to Dr. HANNISTON that he had found lacerations of the vagina, and pocketing incidental to imperfectly repaired perineum, a more frequent and more mischievous source of puerperal sepsis than lacerated cervixes.

Tongue-like Lobes of the Liver.—Dr. MCPHERAN, of Toronto, reported six cases of tongue-like lobes of the liver. The etiology of this abnormality is uncertain, but he thought it most probable that developmental malformation was the cause. The cases reported ranged in age from infancy to old age. The tumor was palpable in all the cases. With the encroachment of the lobes upon neighboring organs, adhesions and constitutional disturbances resulted. Operative interference in one case disclosed the gall-bladder adhered to the normal elongation; in another, the urine was at first albuminous and latterly contained blood and pus—in this case the right kidney was found adherent to the tumor; another case gave rise to neurotic and dyspeptic stomach disorder. The doctor illustrated his remarks by means of a living subject on the platform, as well as by charts. There was no response for discussion of this "obscure subject," as the President termed it.

The Rational Treatment of Typhoid Fever.—This paper was read by Dr. J. P. ARMOUR, of St. Catharines. It will appear in a future issue.

Dr. SAMSON, of Windsor, felt impelled to dissent strongly from the opinion expressed in the paper that *solid* food was admissible in typhoid. He believed that many patients were killed with feeding, and that it should be considered criminal to give coal-tar extracts. He would not give a mouthful of solid food until the patient was able to go across the room for it. Quiet and good nursing were of the first importance. He agreed with Dr. ARMOUR in the worthlessness of quinine in typhoid. There was no such thing as *typho-malaria*. He had found turpentine of much value in typhoid and believed he had saved many lives by its use. For food he would use good milk (not more than a quart a day) and the expressed juice of beef, but no biscuits or bread or rice. When the depression which followed the crisis came he would use good whisky as a stimulant, and use it generously. The so-called aborted cases, those which did not extend over the usual period of twenty-six or twenty-eight days, were probably not typhoid at all.

Dr. MCPHERAN, of Toronto, could not agree

with the writer's depreciation of cold baths. Cold baths did more than to reduce temperature, they added to the general improvement of the patient, mentally as well as physically. He was not sure that Dr. ARMOUR did not attach too much value to purgative treatment. Purgatives did not empty the intestinal tract as thoroughly as was generally supposed, and as an eliminative agent they were probably as futile as enemas. The term antiseptic in this connection was a bad one. The bowels may be *deodorized*, but cannot be rendered *antiseptic*.

Dr. MACHELL, of Toronto, thought statistics of typhoid epidemics were valueless, as the character of the disease in one epidemic differed in degree and type so far from all others that comparisons were not practicable. Typhoid could scarcely be diagnosed in five or six days, much less aborted.

Dr. CRICKSHANK, of Windsor, said that if the craving of the stomach for food in typhoid should not be gratified, then the assumption that natural desires may, with safety, be gratified is not tenable.

Dr. ARMOUR, in closing the discussion, stated that he had merely given the meeting the results of his observation and experience in the treatment of this disease, and, while gratified with the free discussion which the paper had provoked, he must say that no views advanced in the discussion appeared to warrant him in departing from his present treatment, which had given him such satisfactory results. In reply to Dr. MACHELL, what he meant to be understood was, not that the disease was in many of his cases limited to 5 to 15 days, but that it terminated within that time *after he began* treatment.

FIRST DAY—AFTERNOON SESSION

The President's Address.—Dr. GRASSETT, in his address, said that only on two other occasions had the association meeting been held outside of Toronto—once at Hamilton, and once at Toronto. It would be the duty of this meeting to consider whether the advantages of a change of locality would warrant the holding of the meeting outside of a central and permanent place of meeting. The profession in Windsor was entitled to special credit for the excellent arrangements made for the holding of the present session. Fitting reference was made to the loss sustained by the profession and the association by the death of such men as Dr. MCFARLAND, of Toronto, and Drs. FENWICK and SAUNDERS, of Kingston. He mentioned, among the prominent topics engaging the attention of the profession at the present time, the question of lengthening the sessions of medical colleges, the regulation of the standard of matriculation in medicine, and reciprocity of registration with Great Britain. He thought it waste of time to talk of reciprocity of registration with Great Britain until we had first secured the privilege of inter-provincial registration within ourselves. Under the head of "Progress of Medical and Surgical Science" brief reference was made to the recognition in Canada of the communicability of tuberculosis, and the erection of a national sanitarium now in progress at Gravenhurst (Muskoka) for the controlling and treatment of this dread disease. The hygienic, climatic, and dietetic management of tubercular cases was now receiving the attention which its importance deserves, and which has heretofore been directed too much to reputed specific and more or less illusory fads. He strongly commended the work being accomplished, at the Adirondack Cottage Hospitals, for consumptives, at Saranac Lake. In view of PASTEUR'S, LISTER'S, and RÖNTGEN'S discoveries, the 19th century may well be

designated *the scientific century*. During the past year intracranial surgery and localization of cerebral centers have made definite advancement, a department in which the physician shares equal honors with the surgeon. Since our last meeting abdominal and pelvic surgery have developed wonderfully, the advance being specially in the direction of improved technique. Among the new operations the recent operation for prostatectomy is worthy of mention. The researches and progress in medicine are not less marked than in surgery. The study of the physiological action of drugs has contributed to their more scientific therapeutical application. Perhaps the most signal advance of all has been made, not in the treatment or cure, but in the *prevention*, of disease. The principle of inoculation has contributed largely to this end; while the infant science of bacteriology already offers promise of still greater triumphs in the future.

THE PRESIDENT hoped that this meeting would be characterized by good-natured, free, frank, and pungent discussion. These annual gatherings should stimulate us to a closer examination and a better study of nature and her laws. If this broadening of knowledge is associated with a true love of the profession and devotion to its sacred and honorable duties, we are sure to be useful to our fellow-men and our generation.

The Operative Treatment of Mammary Carcinoma.—Dr. BURT, of Paris, read a paper on this subject. He claimed that this operation, done early and thoroughly, might now be regarded not merely as palliative, but as a curative treatment. He referred to the statistics of BULL, MYERS, HALSTEAD, and other operators. He did not think the limited operation on the mamma itself worthy of the name of an operation, and strongly advocated the wide or complete operation. The extent of the excision as performed by different operators was described, and he thought it safe to err in the direction of too free rather than too conservative removal. Ninety per cent. of all tumors of the mamma were malignant, or would become so after 40 years of age. He advised cutting wide of, but never into, the diseased tissue. He thought the cosmetic effects of a primary union were too often sought after; in the majority of cases better after-results would be obtained by allowing the wound to heal by granulation. Of the 12 operations which he had performed, six died from recurrence, after an average period of 18½ months following removal. Of the six still alive the shortest period since the operation was three years, the longest 16 years.

Dr. WELFORD, of Woodstock, said that the incomplete operation invariably gave a history of recurrence. The lines of extension of the disease followed the course of the circulation. The removal of axillary and clavicular glands was imperative in every case.

Dr. McKEOUGH, of Chatham, believed that Dr. SENN's dictum was the safe rule to follow: "Operate early and thoroughly." If extensive infiltration and diffusion had taken place it was a hardship to the patient, and an injustice to the art of surgery, to operate at all. TREVES was authority for the statement that glandular infection cannot be detected in the axilla until it is opened.

Dr. PRIMROSE, of Toronto, thought too much was made of the lymphatic channels of extension, while not enough attention was paid to peripheral (ligaments of Cooper) processes of the breast itself. Not only is removal of these processes necessary, but the fascia which receives them must be removed.

Dr. MACLEAN, of Ann Arbor, a Canadian, could

not help contrasting the up-to-date papers just read with the instruction given in his student days at his Alma Mater, Edinburgh University, by men foremost in the profession at that time. Operations were now spoken of and performed with perfect confidence and marked success the mere mention or suggestion of which would have visited with condemnation the most eminent surgeon of his college days. He spoke hopefully of the operation, even after glandular involvement, and in his experience, which had been extensive, recurrence was not the rule. He was glad to find so much emphasis laid upon thorough removal of all suspected structures. He recalled a case upon which he operated many years ago. The operation was repeated, in all, seven times, but unfortunately, as it seemed to him now, the first operation was confined to the mamma itself. To him the remarkable feature of the case was that after the seventh operation there followed a period of seven years of restored health; but 11 years after the first operation he presented the patient to the Michigan State Central Association in an absolutely hopeless condition from recurrence of the disease. After seven years of absolute immunity the thoracic wall was found completely infiltrated beyond all hope of recovery. This case had often raised in his mind some question as to the three-year limit of recurrence, and whether the result would have been otherwise if the first removal had been thorough and complete.

Dr. HARRISON, of Selkirk, an ex-president and one of the fathers of the association, asked whether, in the case of a return of cancer after an immunity of seven years, it might not be inferred that there was a cancerous diathesis present, rather than that there was a recurrence of the former infection. Fifty years ago, in the practice of his father, a lady died of cancer, and in his own practice six descendants of the same woman subsequently died of the same disease. The history of that family was to him strong evidence of the heredity of cancer.

(To be continued)

CORRESPONDENCE

(From the BULLETIN'S Special Correspondents)

PHILADELPHIA LETTER

A stated meeting of the Obstetrical Society was held June 4, with Dr. E. E. MONTGOMERY in the chair. Dr. W. H. PARISH read a paper on "A Case of Nephrectomy for Hydronephrosis." The patient had been delivered with forceps two years before; she now had a large tumor on the left side, extending from diaphragm to the crest of pelvis, which had at one time suddenly disappeared, but soon enlarged again. There was fluctuation, but little tenderness on pressure. The urine was normal, except once when there was trace of albumin; the urea averaged less than 200 grn. It was thought best to operate and not tap; the kidney was removed, and drainage employed for 24 hours. She made a good recovery. The urea after the operation amounted to 375 grn. Dr. PARISH thought that in estimating the urea excreted the amount of nitrogenous food ingested and exercise should be considered, as the urea was often very low in patients being prepared for operation, where there was a limited amount of food and exercise.

Dr. F. W. TALLEY read a paper on "A Case of Nephrotomy for Pylonephrosis." The case was a

young woman, with tubercular history; she had cystitis following her first pregnancy, and with second pregnancy had pyelonephrosis. He made an opening in the loin, and placed a drainage-tube in the pelvis of the kidney. Dr. TALLEY gave as the cause either the bacillus coli commune, which is most common, or the strepto- or staphylococci. They could enter either by the blood or through the ureter, but there must be some injury or ligation of the ureter.

Dr. R. C. NORRIS read a paper on "A Case of Nephrotomy for Pyelitis." The urine contained pus, but there was no albumin. The attempt to catheterize the ureter was not successful, as it was inflamed, tender, and bled easily. He opened the abscess through the loin and drained; the wound did not heal until a sound was passed down through the ureter, which allowed the urine to escape normally.

Dr. C. P. NOBLE read a paper on "A Case of Nephrectomy for Tubercular Abscess of the Kidney." There was a large, tender, and painful swelling in the left side. The abscess was opened and drained through the loin, and later, when ureter was catheterized, there was no urine, so it was thought best to remove the kidney, which had to be dissected out. The renal artery was found obliterated. The cavity was packed with gauze. The mass removed was full of abscess cavities, which on microscopic examination showed tubercle bacilli. This seemed to be the primary location of the tubercle, as, apparently, no other organs were involved. The case made a good recovery.

Dr. W. E. PARKE read a paper on "Diagnosis of Pregnancy by the Changes in the Microscopic Appearance of the Urinary Phosphates." He employed Dr. Grey's solution, and found in cases of pregnancy that the leaflets of the triple phosphates lost their feathery character.

Dr. L. J. HAMMOND said the same change occurred during the menstrual flow and in other neurotic conditions, and did not think that this could be depended on to make a positive diagnosis.

Dr. H. LEAMAN reported a "Case of Tetanus following a Miscarriage." He was called to the case and found she had aborted twins. He removed the placenta and gave, each day, a bichloride douche (1:2000) made with boiled water. Five days after abortion there was tightening of lower jaw, convulsion, and opisthotonos. He gave one dose of antitoxin, but could see no beneficial effect, so discontinued this treatment. The case did not recover.

Dr. G. M. BOYD read a paper on "Symphysiotomy" and also on "Fibroid of Uterus Complicating Labor, necessitating Hysterectomy." He said the histories of previous labors should govern the operation employed, and that craniotomy should only be employed where the child was dead. The induction of premature labor in contracted pelvis had not been employed, as he had not seen the cases early enough. He reported a case successfully operated on by symphyseotomy and a case with fibroid on which he did a hysterectomy; the child was dead, the mother recovered.

Drs. NORRIS, PARISH, and HAMMOND took part in the discussion. Dr. PARISH thought well of induction of labor, but did not apply forceps to a premature child unless obliged to, as it usually resulted in the death of the child.

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A stated meeting of the County Medical Society was held June 10, with Dr. T. J. MAYS in the chair. Dr. B. MEADE BOLTON read a paper on "The Ex-

aminations of Cultures from Cases of Suspected Diphtheria." The total number of examinations made was 3363; of these 1421 were primary, and 1942 secondary. The diagnosis of diphtheria was made by physician in 557; of these 507, or 90.2 per cent., were confirmed by bacteriological examination. In 148 cases the diagnosis of diphtheria was not made by the physicians, but 108 showed the Löffler bacilli. The total number in which diagnosis was made was 507, and was confirmed by finding Löffler's bacilli in 615, or 86.4 per cent. In cultures made from throats of persons exposed to diphtheria the bacilli were found in 41 per cent. The times the bacilli were found in the throats after the onset of the attack varied from 7 to 96 days, with an average of 28 days. Dr. ESHNER said he was glad Dr. BOLTON had left out the germs in pseudo-diphtheria and angina. Dr. BOLTON said there were only the Löffler bacilli and streptococci found in the angina that would be diagnosed diphtheria.

Dr. EDWARD JACKSON read a paper on "The Profession, the Opticians, and the Public." He said at first the physicians did not give attention to the fitting of glasses, and then it was taken up by the profession generally, and lastly by the specialist. He thought that the optician of to-day who was thorough in his work felt the need of medical knowledge, and he had been approached by many, to know how best to prepare themselves, and in one case the optician, an elderly man, had entered a four-years medical course to prepare himself for this work. He condemned very strongly the acceptance of fees by the physician from the optician, and advised specialists—the only ones he thought capable to test for glasses—to send their work to three or four well-recognized opticians. He ended by asking the co-operation of the medical men, so that their cases might be properly attended.

Dr. THOMSON agreed in all Dr. JACKSON said. He had been working for many years to correct much of the faulty work done. He said it required time, patience, and skill, as the adjustment of glasses, to be satisfactory, must be perfect.

Dr. LAUTENBACH said that he often had to contend with cases that had been improperly treated, and always saw that the glasses were properly adjusted.

Dr. ERNEST LAPLACE read a paper on the "Surgical Treatment of Insanity, with report of Cases." He thought that insanity was a symptom which may have a removable cause, and in cases where it was due to traumatism and the site located an operation should be performed. In the first case there was a history of a fall six months before, and there were evidences of syphilis. He operated nine months after development of insanity, separating the adherent dura around the opening, and placed the patient on antisyphilitic treatment. The recovery was good. The second case, a woman of 54, was struck on the head by her husband with his fist. She was very violent. He trephined in temporal region and found bone thick and dura adherent. Three weeks after she was perfectly sane, and is still well, six months after operation. The third case, a young man of 26, suffered with melancholia and dullness of intellect. Trephined in left temporal region. There was a profuse hemorrhage. One month after operation he was perfectly well. The fourth case was a man, 45, with delusions of a personal character. L. trephined, found adhesions of the dura, hemorrhage profuse. Patient has not had any delusions since operation, three weeks ago.

Dr. DOWNS spoke of a case that had been treated by a nerve specialist, with no improvement. He

noticed on examination a scar on temple, where he trephined and removed an old clot. Recovery good, and no mental symptoms occurred in an attack of typhoid fever after the operation.

Dr. J. C. DACOSTA said he was very much interested in this work, and was sorry Dr. LAPLACE had not given more attention to the histories and classification of his cases. He had been an interne in an asylum, and there had seen cases suddenly recover after some shock, but this was not always a permanent recovery. He had one case recover after a fall, another after removal of cancer of the breast, and one after causing an ulcer of the penis by placing over it a ring. He did not think the operation of trephining should be employed unless there was decided evidence of traumatism.

Dr. J. M. BARTON had seen a case recover after the removal of dead bone.

Dr. LAPLACE, in ending, said that there was always a cause, and that it should be sought and these cases relieved of their suffering.

Dr. J. P. C. GRIFFITH reported "A Case of Varicella Gangrenosa." A child, 22 months old, was sent into the hospital with symptoms of meningitis. There it developed symptoms of pneumonia, diphtheria, measles, and varicella with gangrenous spots on the back, side, and legs. It again developed symptoms of pneumonia and died. Post-mortem showed evidences of diphtheria, measles, and varicella.

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The 122d annual medical commencement of the University of Pennsylvania was held on June 11. A class of 88 received diplomas. This was the smallest class for some years, due to the change from a three to a four-years course. The total number of graduates in medicine in Philadelphia for 1896 amounts to 475, divided among the following colleges: Jefferson, 227; University of Pennsylvania, 88; Medico-Chirurgical, 61; Women's, 23; and Hahnemann, 76.

SAN FRANCISCO LETTER

At the last regular meeting of the San Francisco County Medical Society Dr. W. S. THORNE read a paper "On the Relation of the Red Blood-corpuscles to Forensic Medicine." Dr. THORNE showed a splendid collection of specimens of red cells of man and domestic animals. The conclusions of the paper were that it was impossible for the physician, by microscopical examinations, to distinguish between the red cells of man and those of the domestic animals, and one cannot convict a man on the strength of microscopical examination of blood.

The discussion was opened by Dr. D. W. MONTGOMERY, who stated that it was a ticklish affair to state whether blood is human or not. Dr. MONTGOMERY cited a case where, in a murder trial, he was called on to examine some dried blood-stains and was asked to give his opinion whether the blood was that of a human being or a pig. The stains were carefully examined, but no good specimens for microscopic examination could be obtained. The blood-cells when seen under the microscope were so disintegrated that nothing could be demonstrated. At this time he compared the fresh blood of the human being and the pig, together under the microscope, but even then the cells could not be differentiated. The difference between the cells of the human being and pig was not recognizable; in one $\frac{1}{3200}$ of an inch, in the other $\frac{1}{4200}$ of an inch in diameter. Again it must not be forgotten that red cells vary in size. The speaker did not think the red blood-cells had any relation to forensic medicine.

Dr. DAVIS complimented the author on his paper and the fine specimens shown under the microscopes before the Society. He quite agreed with Drs. THORNE and MONTGOMERY. We cannot assert that it is possible to distinguish between the red cells of man and the domestic animals, and a jury cannot convict a man on the microscopical examination of blood.

Dr. KUHLMAN held that the crystals of the blood were of great importance in distinguishing the red cells of man from those of a domestic animal.

Dr. THORNE, in closing the discussion, stated that he was pleased that the members of the Society agreed with him that the red cell held no position in forensic medicine; as to the crystals of the blood the author did not think they were any guide in distinguishing the cells of man from those of domestic animals.

Drs. OLLINO and ATKINS, who are to leave San Francisco for other fields, sent in their resignations to the County Medical Society.

Dr. C. BROWNE read a paper on hysterectomy for fibroids of the uterus with pregnancy at the third month. A case from practice. When the patient was seen and examined by Dr. BROWNE the abdomen was found enlarged with an irregular tumor mass. Combined examination showed the uterus enlarged to about the third month; the cervix was very high and could not be reached; the uterus was high up in the pelvis, which was occupied by a tumor which pressed upon the bladder and rectum. On account of the high position of the uterus, the large size of the tumor which was causing severe pressure symptoms, and the weak condition of the patient, who was failing, abdominal hysterectomy was performed. The pregnant uterus, normal tubes and ovaries, massive subserous fibroids, and a retroperitoneal fibroid were removed. The broad ligaments were tied off in sections, and after removal of uterus, etc., clamps were applied from the vagina on the stumps internal to the ligatures, the ends of which were brought down into the vagina; the abdomen was drained above and below with strips of gauze. The remainder of abdominal wound was closed as follows: A running catgut suture for peritoneum, a single layer of interrupted silkworm-gut for skin and fascia. The uterus appendages and tumor masses weighed about sixteen pounds. The patient made an uninterrupted recovery.

Dr. J. R. LAINE, of Sacramento, secretary of the California State Board of Health, stated that a report of 59 cities, towns, and villages, aggregating a population of 742,995, shows a mortality of 1069, a death-rate of 1.43 per 1000, for March, or 17.16 per 1000 per annum.

Measles are reported as still epidemic at Red Bluff and Pasadena.

The Decrease of Paupers in England.—There appears to be this year a steady decrease in pauperism in England, due doubtless to the fact that, taken altogether, the winter has not been a severe one. In the city of London, during the month of March this year, there was a decrease from the same period of time last year of as much as 20 per cent., while in all England and Wales the reduction varied from 9.5 per cent. to 6.3 per cent. It would be interesting could we make a comparison of the state of affairs existing in this country. Altogether we believe that figures would prove about the same decrease, an index of the better times which all are praying for and, perhaps not without warrant, expecting.

REVIEWS

Clinical Lectures on Abdominal Surgery and Other Subjects.—By CHARLES T. PARKES, A.M., M.D.; edited by Dr. A. J. OCHSNER.—Pages 477. Chicago: The W. T. KEENER CO., 1896.

This work is an outcome of the desire expressed by many of the former pupils and friends of the late Dr. PARKES for a collection of reports of his clinical lectures, and as far as possible the language and modes of expression of the lecturer have been preserved. The first chapter deals with the question of abdominal tumors, covers 96 pages, and treats of almost every possible intra-abdominal enlargement. Many cases are cited, and the results given. The second chapter includes gun-shot wounds of the abdomen; and the results of a series of experiments which were conducted by Prof. PARKES some years ago on the question of gun-shot wounds of the intestine are included. The third chapter covers the question of renal calculus, and surgical operations upon the kidneys, and the fourth considers the question of tuberculosis from a surgical point of view. This chapter also includes carcinoma, epithelioma, sarcoma, polypus, neuroma, exostosis, fibroma, cysts, and operations for the removal of the thyroid gland, goiter, trephining for epilepsy, anesthesia, the treatment of wounds, and a series of short reports of the various operative work that was included in the course of the clinics. At the close of the book there is an appendix giving a regular clinic at the Rush Medical College, of Chicago, on October 15, 1889. The chief interest in the book, of course, will be found among those who were personally acquainted with Dr. PARKES. Nevertheless the large range of subjects, and the concise way in which they were dealt with in the course of clinical work make the volume of considerable value even to the general practitioner. It is not intended to, and cannot in any way, take the place of a textbook, but it answers its purpose admirably of preserving a memorial of a successful clinical teacher.

A Pictorial Atlas of Skin Diseases and Syphilitic Affections, in Photo-lithochromes from Models in the Museum of the Saint Louis Hospital, Paris.—With explanatory woodcuts and text. By E. BESNIER, A. FOURNIER, TENNESON, HALLOPEAU, DU CASTEL, H. FEULARD, and L. JACQUET. Part III. English edition, edited and annotated by J. J. PRINGLE, M.D., F.R.C.P. London: The Rebman Publishing Company, Ltd.; Phila.: W. B. Saunders; 1896.

Part III of this atlas keeps well up to the artistic standard set by the preceding plates. In this part are illustrations of syphilis of the tongue (FOURNIER), dermatitis herpetiformis (HALLOPEAU), syphilitic gummata (FOURNIER), and epitheliomata of the face (BESNIER). The first plate shows the several principal types of ulceration of the tongue occurring in tertiary syphilis: sclerosing glossitis in its two forms, superficial or cortical sclerosing glossitis and deep or parenchymatous sclerosing glossitis (also called lingual sclerosis); and gummatous glossitis, in its superficial or mucous form and in its deep or sub-mucous or muscular form. These cases are further illustrated by descriptive woodcuts. The second plate exhibits an extensive case of dermatitis herpetiformis, the eruption, for the most part, resembling that of erythema and herpes iris. An analytical woodcut of this plate is also presented. The syphi-

litic gummata of the thigh shown in the third plate are well portrayed. This and the plate of syphilis of the tongue above referred to are valuable additions to our atlas pictures of this disease, being clear and true to nature. The fourth plate in the present interesting number of this atlas shows "disseminated epithelioma of the face, of sebaceous origin." This is a well-marked example of a condition not uncommon in dermatological experience. The disease as here presented is much more extensive than commonly observed, but nevertheless its features are well shown, and the plate is of clinical value to the student and practitioner. An analytical woodcut of this same case is also added. As previously remarked in reviewing the first two parts of this publication, the accompanying text is most valuable—terse, yet clear, comprehensive, and full of information and knowledge.

EDITORS' NOTES

Causes of Blindness.—It is said that about one-quarter of the inmates of the Batavia (N. Y.) School for the Blind lost their sight through purulent ophthalmia.

The Tri-State Medical Society elected the following officers at its recent meeting held in Chicago: President, Dr. A. H. CORDIER, of Kansas City, Mo.; 1st vice-president, Dr. HUGH T. PATRICK, of Chicago; 2d vice-president, Dr. H. C. ESCHBACH, of Albia, Iowa; treasurer, Dr. C. S. CHASE, of Waterloo, Iowa; secretary, Dr. G. W. CALE, of St. Louis, Mo.

A Jenner Relic.—The Royal College of Surgeons was recently presented a silver lancet-case and lancets that were the property of EDWARD JENNER in his lifetime. The donor was Mr. E. WADAMS, of Great Malvern, and the relic was presented to him by an old patient whose grandfather was an assistant of JENNER.

Indian Territory Medical Association.—At the annual meeting of the Indian Territory Medical Association held at Wagoner in June the following officers were elected to serve during the ensuing year: President, Dr. A. M. CLINKSCALES, of Vinita; first vice-president, J. D. BRAZIL, of Wagoner; second vice-president, J. L. BLACKEMORE, of Muskogee; secretary, J. G. RUCKER, of Claremore.

Michigan State Medical Society.—At its recent meeting held in Mt. Clemens the following officers were elected to serve during the ensuing year: President, Dr. HUGH McCOLL, of Lapeer; first vice-president, Dr. Chas. T. SOUTHWORTH, of Monroe; second vice-president, Dr. A. B. CHAPIN, of Mt. Clemens; third vice-president, Dr. DELLA PIERCE, of Kalamazoo; fourth vice-president, Dr. CARL BONNING, of Detroit; secretary, Dr. COLLINS H. JOHNSTON, of Grand Rapids; treasurer, Dr. WM. T. HENRY, of St. Clair Springs. The next meeting of the Society will be held at Grand Rapids in May, 1897.

Indiana State Medical Society.—For 30 years the society has held its meetings in Indianapolis; this year Fort Wayne was chosen as the place. It was feared by many that migration would cause the downfall of the society, but results have shown the contrary. There was an average attendance of 200. The society has a membership of 1400, and its roll is on the increase. The following officers were elected to serve for the ensuing year: President, Dr. J. H. FORD, of Wabash, Ind.; vice-president, Dr. H. F.

BATMAN, of Lebanon; secretary, Dr. F. C. HEATH, of Indianapolis; treasurer, Dr. A. E. BULSON, Jr., of Fort Wayne.

The Association of Military Surgeons of the United States elected the following officers at its annual meeting recently held in Philadelphia: President, Commodore ALBERT L. GIHON, medical director U. S. Navy (retired); first vice-president, Brigadier-General EDWARD J. FORSTER, surgeon-general, Massachusetts, V. M.; second vice-president, Maj. JOHN VAN RENSELLAR HOFF, surgeon U. S. Army; secretary, Maj. HERMAN BURGIN, surgeon N. G. P.; treasurer, Capt. JAMES J. ERWIN, surgeon N. G. Ohio; editor, Maj. CHARLES C. FOSTER, surgeon, Massachusetts, V. M.

A county medical society in Indiana is petitioning the support of its medical men in the initiation of a movement to secure the publication by the Government of a revised edition of the Medical and Surgical History of the War of the Rebellion.

Consumptives will be isolated.—Cincinnati is completing arrangements whereby its tuberculosis patients will be isolated from others, and the branch hospital has been selected for assignment of that class of patients.

Four Years to Graduate.—The following schools have raised their standard of requirements for admission to the study of medicine, and extended their curriculum to cover four graded years as a prerequisite to graduation and conferring of the degree of M. D.:

Medical departments of the universities of New York, of Colorado, of New Orleans, of California, of Buffalo, of Richmond, of Pennsylvania, of Maryland; Georgetown University, at Washington, D. C.; Cotner University, at Lincoln, Neb.; the Northwestern University, at Evanston, Ill.; Jefferson Medical College; College of Physicians and Surgeons, New York; Woman's Medical College, Baltimore; Tufts Medical College, Boston; Miami Medical College, Cincinnati; Woman's Medical College, Philadelphia; College of Physicians and Surgeons, Chicago; Rush Medical College, Chicago; Omaha Medical College; College of Physicians and Surgeons, Keokuk, Ia.; College of Physicians and Surgeons, Baltimore; Cleveland Medical College, Toledo Medical College, Cooper Medical College, San Francisco; Medico-Chirurgical College, Philadelphia; St. Louis Medical College; Johns Hopkins Medical College; Leonard Medical School, Raleigh, N. C.; Michigan College of Medicine and Surgery, Detroit; John A. Creighton Medical College, Omaha; American Medical College, St. Louis; College of Physicians and Surgeons, Boston; Baltimore Medical College, Yale Medical School, Woman's Medical College, St. Louis; Dartmouth Medical College, Hanover, N. H.; Medical College of Ohio, Cincinnati, and the Memphis Hospital Medical College.

Baltimore Medical College.—The faculty of the Baltimore Medical College has made the following appointments: Hospital staff: Dr. DUNCAN MAC-CALMAN, house physician; Dr. T. P. LLOYD, first assistant; Dr. K. P. XENIDES, second assistant; Dr. O. O. LUMPKIN, resident physician Maryland Lying-In Hospital.

Among the appointments for the staff of the medical college are: Dr. W. B. D. PENNIMAN, professor of chemistry; Dr. ARTHUR LEE BROWN, associate professor of chemistry; Dr. T. C. GILCHRIST, clinical professor of dermatology; Health Commissioner Dr. JAMES F. McSHANE, associate professor of hy-

giene; Dr. RIDGELEY D. WARFIELD, associate professor of anatomy; Dr. DELANO AMES, pathologist; Dr. J. GUY TOWNSEND and Dr. HUBERT RICHARDSON, assistant pathologists; Dr. C. A. W. FOSTER, lecturer of pharmacy; Dr. T. M. B. MARTIN, histologist; Dr. JOHN ZEFFERS, assistant histologist; Dr. STOKES, of the Johns Hopkins Hospital, bacteriologist; Dr. THOMAS KEOWN, embryologist; Dr. E. L. WHITNEY, demonstrator of clinical pathology; Dr. JAMES BATES BENNET, Dr. W. I. MESSICK, associate demonstrators of anatomy; Dr. J. D. FARRAR and Dr. ARTHUR P. HERING, prosecutors of anatomy; Dr. J. M. H. ROWLAND, lecturer on medical diagnosis; Dr. MORRIS ROBINS, demonstrator of clinical medicine; Dr. WALTER BOLGIANO, lecturer on osteology; Dr. E. A. SMITH, demonstrator of obstetrics and gynecology; Dr. EDWARD BAUM, associate in surgery; Dr. J. FRED HEMPLE, associate in materia medica; Dr. ROBERT RUHLING, associate in diseases of the eye and ear; Dr. C. M. COOK, dispensary physician and chief of clinic; Drs. CHARLES X. DIXON, C. F. JONES, W. S. SMITH, and W. E. MAGRUDER, assistants in dispensary.

Elmira Water.—The Board of Health of Elmira has condemned the water of the Chemung river and reservoir as contaminated with sewage and detrimental to public health. It is proposed that the city of Elmira proceed at once against the water-works company by legal action to compel them to furnish pure water for domestic purposes.

Physicians under Civil Service Rules.—Among the 170 persons lately transferred from the exempt schedule to the list of employees of the city who figure as "competitives" are a few physicians. The position of Sanitary Superintendent of the Health Department, salary \$4000 (now filled by Dr. C. F. ROBERTS), and the position of Superintendent of the Manhattan Hospital for the Insane, salary \$4500 (now held by Dr. A. E. MACDONALD), are two of the offices thus divorced from political favoritism, by the Mayor's recent ruling, and transferred to the care and supervision of the Municipal Civil Service Boards. The daily papers report that this action of Mayor STRONG has "thrown political bosses and workers into a high state of excitement." We hope that the excitement will be so debilitating as to incapacitate forever the "bosses" who seek to control medical positions within the limits of the State.

Chenango County Doctors Meet.—At a recent meeting of the Chenango County (New York) Medical Society Dr. HENRY L. ELSNER read a paper on "Serious Heart Lesions without Well-marked Continuous Physical Signs." Dr. NATHAN JACOBSON read a paper on surgical treatment of "Septic Conditions within the Abdomen." Dr. WILLIS E. FORD presented a paper on "Conservative Gynecology."

The Medical Society of Delaware held its 107th annual meeting on June 10. Dr. JAMES T. MASSEY, of Canterbury, Del., presided. Among the papers read were the following: By Dr. A. T. NEALE, of Delaware College, on "Contagious Diseases of the Lower Animals, and their Relation to the Human Family"; by Prof. F. D. CHESTER, of Delaware College, on "The Microscope"; by Dr. JAMES H. WILSON, of Dover, on the "Sources"; by Dr. JUDSON DELAND, of Philadelphia, on "Diagnosis"; by Dr. R. B. HOPKINS, of Milton, on "Treatment"; by Dr. E. S. DWIGHT, of Smyrna, on "Cardiac Diseases as Encountered in Country Practice"; by

Dr. C. M. ELLIS, of Elkton, Md., on "Obstetrical Complications." Dr. H. J. STUBBS made a report of three cases of appendicitis. Dr. WILLIAM P. ORR, of Lewes, was elected president; Dr. WILLARD SPRINGER, of Wilmington, vice-president; Dr. P. W. TOMLINSON, of Wilmington, secretary; Dr. WILLIAM C. PIERCE, of Wilmington, treasurer.

Navy Items.—Passed Assistant Surgeon P. H. BRYANT was ordered to Naval Station, Newport, R. I.

Assistant Surgeon C. M. DE VALIN was detached from the Chelsea (Mass.) Hospital and ordered to the *Blake*.

Passed Assistant Surgeon E. E. STITT was detached from the *Bache* and ordered to the *Vermont*, June 13.

Medicine, Theology, and Finance.—"Medical men are often placed in a position of difficulty in regard to charges for professional services to clergymen. Many clergymen expect gratuitous attendance, and many doctors decline fees for services rendered to them unless they are in a good position. . . . Dealing with this question in a paper read before a local medical society, Dr. D. CAMPBELL BLACK, of Glasgow, gave utterance to sentiments which will meet with the approval of most doctors. He said: 'My distinct opinion is that poverty and suffering never appeal in vain to the worthy disciple of the old man of Cos, but I distinctly fail to see why, because a man is a clergyman, he is entitled to sponge, particularly on a young and poor practitioner of medicine. In my opinion, and I submit it with all humility, especially in the city of Glasgow, the clergyman in receipt of over £1000 per annum is grossly overpaid; and as a rule clergymen are the most pampered members of the community. Every now and again do I notice the presentation of £400 or £500 to some clergyman, especially one with his comfortable £1000 per annum, to enable him to go and take a four- or five-months holiday, after a series of fierce encounters with Beelzebub, or of his having a pecuniary jubilee or semi-jubilee. When did you ever hear of a poor hard-wrought doctor ever receiving a £5 note from the public if run down in health? Of course the money is ostensibly given to our friend, the parson, to strengthen the faith (and if anything can do this money will) by a run to the 'Holy Land.'"—*Medical Times and Hosp. Gaz.*

[The doctor of divinity receives a gratuity unasked and is sent to the Holy Land. The doctor of medicine does not get what is his due even after repeated dunning, and should he be too persistent in his demands he is invited to go to the "Unholy Land" with all the sincerity that can be conveyed by strong language.—ED.]

A Matter Calling for Rigid Investigation.—The least sensational of the New York daily papers prints the following in its editorial columns of the 16th inst.:

"A more extraordinary story than that which is printed this morning concerning the attempted assassination of the president of the Bank of New Amsterdam has seldom, if ever, been printed. Cranks are likely to do strange and unaccountable things, but the most strange and unaccountable performance, outside of the wicked shooting itself in this case, is that of the servants and officials of the New York Hospital. It was bad enough to keep the victim lying in the ambulance without amelioration of his sufferings while the would-be murderer's com-

fort was looked after; but to send the two men to the hospital side by side in the wagon, without taking the precaution to disarm the murderous crank, was simply monstrous. What a dramatic spectacle it is to contemplate the two lying side by side, one pleading to know why he had been shot and ignorant of the fact that his queries were likely to arouse the insane fury of the other, who had been permitted to retain the weapon with which he had done the deed with two cartridges undischarged. Has the case a parallel? Is the New York Hospital in the service of humanity?"

The BULLETIN trusts, for the good name of this hospital, that exaggeration has unintentionally crept into this report. Certainly the procedure was little less than barbarous—the placing of the assailed and the assailant in the same ambulance; but beyond this it is scandalous that either of the wounded should have been obliged to wait so long before surgical aid was rendered. In no emergency does life depend so much on haste and skill as the wound in the abdomen, and we question if in an instance of this character it should not be the duty of the house surgeon, when unable to secure the immediate attendance of the visiting surgeon, to go ahead and do his best to check possibly what otherwise may prove to be a fatal hemorrhage; or, if sufficient confidence cannot be placed in the house surgeon, then questions of hospital etiquette should be thrown to the winds and the most competent surgeon near at hand should be sent for, even though he be not connected with the institution.

College Notes.—During the Month of May the University of Pennsylvania received contributions aggregating \$40,000 to the fund of the university.

The Women's Medical College of the Northwestern University, at Evanston, Ill., will extend its course to cover four years after June, 1898.

The universities of Vienna are seriously considering the advisability of extending their curriculum to cover a period of seven years.

The Jefferson Medical College, of Philadelphia, will erect a new hospital building on its property adjacent to the college.

Personal.—Dr. CHARLES W. BURR has been elected neurologist to the Philadelphia Hospital, vice Dr. WHARTON SINKLER, resigned.

Prof. FRANCIS HEMM, of the St. Louis College of Pharmacy, has been appointed professor of chemistry and director of the chemical laboratories in the Missouri Medical College, vice Prof. CHARLES O. CURTMAN, deceased.

Dr. GEO. H. ROHE has resigned as superintendent of the Maryland Hospital for the Insane, to take charge of the new Hospital for the Insane, at Springfield, Md.

Dr. JUDSON DALAND has been elected professor of diseases of the chest in the Philadelphia Polyclinic. He was graduated from the University of Pennsylvania with the class of 1882.

Prof. ALEXANDER J. C. SKENE, of Brooklyn, was recently elected a fellow of the Edinburgh Obstetric Society.

Professor KOHLER, Imperial German health officer, claims to have found symptoms of tuberculosis in one-third of the deaths reported by him that occurred between the ages of 15 and 60.

Dr. A. OTT, of Binghamton, N. Y., has succeeded Dr. F. M. STEVENS as superintendent of the Sayre Hospital, that city.

Dr. HARRY H. COLBURN, of Portland, Me., has

been appointed assistant physician at the insane-hospital in Danvers, Mass., and will begin his duties July 1.

Dr. J. A. DENNY, chief surgeon of the Chicago, Burlington and Quincy Railroad in Chicago, was thrown from his buggy on June 5 and seriously injured.

Dr. BEHRING is credited with having discovered a serum antagonistic to cholera.

Foreign Notes.—A village in the department of Haute Garonne, France, lays claim to having recently buried the oldest woman in the world. At the time of her death she was 150 years of age.

An organization of workingmen in Birmingham, England, has contributed to the maintenance of its hospitals by the endowment of almost half a million pounds.

It is said that over 150,000 deaths of children under one year of age occur every year in France.

Obituary.—The death is reported of Dr. CHARLES M. NES, the inventor of the Nes silicon method of converting iron ore into steel. Dr. NES was one of the Commissioners to the Vienna Exposition in 1873, appointed by President GRANT to represent Pennsylvania. His death occurred in York, Pa., June 11, in his 69th year.—Dr. THOMAS L. HOUGH died at his home in Elizabeth, N. J., June 12, after an attack of disease of the cerebral arteries which had caused insanity. He was 65 years of age. He was one of the founders of the Union County Medical Society. His only daughter is the wife of Dr. WILLIAM A. M. MACK, of Elizabeth.—Dr. THOS. FERRIS COCK died at his summer home in Cold Spring, L. I., on June 10, aged 77 years. After graduation from the University of Pennsylvania, in 1839, he came to New York city. In his earlier years he was attending surgeon or physician to a number of hospitals in the city, and at the time of his death he was consulting physician to the New York, Marion St. Maternity, Woman's Hospital, and the New York Infirmary for Women and Children, as well as member of many societies. He was the son of Dr. THOMAS COCK, president of the College of Physicians and Surgeons and president of the Academy of Medicine. Dr. T. F. COCK was a trustee of the College of Physicians and Surgeons from 1875 to 1891.—Dr. JOHN L. ROBINSON died at his home in Manchester, N. H., June 13. He was a graduate of Harvard Medical School, class of 1859, practiced in Wenham, Mass., about 20 years, and later in Manchester. He was surgeon of the Eighth Massachusetts Regiment during the war, and an army surgeon until 1875. He was 61 years of age.—Dr. EDWIN D. RAMSDALL died in this city June 12. He was born in Belleville, N. Y., in 1830; was graduated from the University Medical College in 1855; and was a member of the County Society and of the Academy of Medicine. His son, Dr. E. BENJAMIN RAMSDALL, is visiting surgeon to the Throat and Nose Hospital and one of the physicians to the Fire Department.—Dr. JULIUS M. SIMPSON died at his home in Schraalenburg, N. J., on June 11, aged 59 years.—Dr. A. J. CATTANACH, in Denver, Col., on May 30, aged 49 years. He was graduated from MCGILL University, Montreal, Can., in 1871, and was a member of the College of Physicians and Surgeons of Ontario. At the time of his death he was adjunct professor of materia medica and therapeutics in the University of Denver and a member of the Colorado State Medical Society.—Dr. JOHN GILLESPIE, in Roxbury, Mass., on June 7.—Dr. ASA K. SEEM, of Martin's Creek, Pa., on June 9

PUBLISHERS' DEPARTMENT

A VALUABLE INDORSEMENT

CUTHBERT BOWEN, M.A., M.D., F.R.M.S., General Hospital, Bridgetown, Barbadoes, West Indies, in a letter dated May 10, 1896, writes:

"I have used Campho-Phénique, both in its liquid and powdered form, as a dressing for wounded surfaces of every description, and I have no hesitation in pronouncing it to be the most satisfactory antiseptic application which has come under my observation as yet. Its freedom from unpleasant odor renders its employment by the general practitioner far preferable to that of iodoform, while the results obtained are, as far as my experience goes, quite as good as those from iodoform."

IRON IN ANEMIA AND CHLOROSIS

Rarely has a preparation secured such wide-spread popularity as the peptonate of iron and manganese introduced about six years ago by the M. J. BREITENBACH COMPANY of New York city. The profession had for long been awaiting the advent of a preparation which, while it would make good blood, would at one and the same time be readily assimilated without interfering with the digestive functions. As a rule the preparations of iron will either upset the stomach or constipate to such degree that the process of proper assimilation of food is interfered with. In anemia and in chlorosis it is, above all, essential to maintain the digestive and the intestinal tract in condition as regards function, else, no matter what the drug introduced into the stomach, absorption being faulty, desired effect is not secured. The neutral peptonates of iron and of manganese which constitute the ingredients of pepto-mangan, it may be claimed, as the result of extensive experimentation both at home and abroad, do not interfere with the digestive functions, do not constipate, do not injure the teeth, and are so palatable that they may even be given to children.

A NEW RUBBER FOOT

An improvement has been made recently in artificial feet which seems to leave nothing more to do in order to produce as nearly a perfect counterfeit of the natural member as it is possible for human ingenuity to secure.

The new invention consists of the insertion of a mattress of canvas in which is imbedded side by side a layer of narrow, flat, steel springs. The canvas holds them in the pocket, in which they slide freely, and the ends are capped with metal to prevent their perforating the rubber and leaving their proper bed.

The rubber which rests above this mattress is spongy, increasing the lightness and also the flexibility of the foot. Further, just above the posterior end of the mattress in the heel there is a large air chamber so arranged that it cannot burst, and thus preventing the heel from matting or failing in elasticity.

The mechanism has been submitted to the most severe test, and found to be so durable that after being tested equal to 10,000 miles of actual walking it showed no signs of giving way.

By this improvement the foot is also lightened, and now weighs from 8 to 16 oz. less than any other made, varying according to the weight of the person wearing the limb. A. A. MARKS, 701 Broadway, N. Y., is the sole proprietor of this artificial foot.

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BY WHICH ROUTE—VAGINA OR ABDOMEN?

SUCH is the question of interest to-day among those who practice gynecology. Elaborate discussion, dogmatic statements, wealth of statistics, have by no means settled the question. On the one hand we find men arrayed who would limit the sphere of the vaginal operation strictly to pus cases, and on the other hand men of equal eminence would limit the abdominal operation to cases which are found inoperable by the vagina. Statistics emanating from some men show a fractional mortality following the vaginal operation, and statistics from other men show the same fractional mortality following the abdominal operation. Individual skill and experience by one or the other route, doubtless, will explain amply the discrepancy in opinion. Unquestionably, other things equal, the operator who has been trained to work from above will favor this route and secure results which justify his choice; and the reverse holds for those who, like the surgeons of the French school, for example, are most familiar with work from below.

The main argument in favor of the abdominal operation is the fact that the hand is assisted by the eye, and yet those whose experience has been great with operating by the vagina tell us that even there the eye assists the hand. The bugbear of hernia following operation per abdomen can be disposed of as worthless where sufficient time is given to the closure of the abdominal incision so as to secure accurate union of the fascia. It has been by no means proved that shock is less where the operation is performed by the vagina. Much depends on the nature of the case. If it be simple, no more shock should be associated with abdominal than with vaginal work; if it be complicated, the chances are that shock will be great by either route. In difficult work the operation is apt to be an incomplete one

where the vagina is selected—particularly if the case be associated with adhesions of the dense type. Further still, should the disease requiring operative measures be of a malignant type, the vagina forbids the institution of the very radical dissection which the newer methods require. That the operation may be shortened through the use of clamps will hold for a small proportion of cases, but then the convalescence is far more protracted, since the use of clamps entails sloughing of a protracted character.

Such seem to be the alternatives offered by one or the other route, stated with that fairness which the views of experts justify. It is safe at the present to claim that each case must be judged as an entity, the one being eminently suitable for operation by the vagina and the other by the abdomen. A fibroid entirely intrapelvic may be readily removed from below, while another fibroid extending above the pelvic brim it would be folly to attempt to remove except by the abdominal route. It is not alone a question of possibility—the feasibility must also be taken into account. Again, while it may be granted as possible to remove ectopic gestation sacs from below, if the case is not seen until after rupture the safer course is to open from above. Pus collections should ever be attacked from the vagina, since, should it not prove feasible to remove the focus of infection, we can at least drain and render aseptic, and at an interval afterward, if it appear requisite, the danger of complete removal from above is lessened by the fact that aseptic conditions have been secured first from below.

In a word, it will not answer to ride either the vaginal or the abdominal horse irrespective of the case. To judge each on its merits is the safe and the wise course. We can always explore from below and thus secure data which may teach us that it is

wise to finish from above. Above all does this course suggest itself as the honest one under conditions where there is doubt as to the justifiability of any operation at all. Had such a course been followed years ago doubtless many a tube and ovary would be where they properly belong, and many a woman would have escaped operation which has in no wise bettered her. Retrospection of this type, however, is no longer desirable. Operators have become more careful, and perhaps we might say with equal truth that women have, for we find them insisting on the selection of the vaginal route whenever it is found at all feasible. Even though for years to come the settlement of the question we have dwelt upon is not reached, operators will be more circumspect, certainly, in recommending abdominal work before exploring by the vagina.

ORIGINAL CONTRIBUTIONS

THE RATIONAL TREATMENT OF TYPHOID FEVER*

By J. P. ARMOUR, M.D., St. Catharines, Ont.

TO accurately estimate the value of treatment in typhoid fever, the natural course of the disease would have to be ascertained, but it is impossible to fix this. All statistics go to show there is great variation in the natural death-rate in different visitations, and consequently only an approximate value can be attached to any kind of treatment. From statistics available it would appear that the natural death-rate under favorable hygienic conditions would vary from about 6 to 30 per cent., and that resulting from the various methods of treatment, not much better.

There is no question that the use of medicine has been greatly abused in this affliction. A recent popular work on medicine cautions against the abuse of remedies in this disease, and afterward recommends the use of no less than 67 drugs that under varying circumstances may be employed. When we have several large collections of cases with the most favorable results without the administration of any medicine, it should make it easy to eliminate all drugs of doubtful utility and retain only such as have a positive salutary effect.

Since the time when bleeding and starving constituted the orthodox treatment of the disease there has been a prejudice against the use of purgatives and solid food after the formative stage has been passed, and for several decades this has come to be observed with fervor by most medical writers and the great mass of practitioners on account of their supposed injurious effect on the abdominal lesions. Notwithstanding this, a few practitioners have had the courage to test the value of purgatives throughout the entire course of the disease, and the results have shown that they may be so used, not only with

perfect safety, but with a favorable effect on the bowel lesions.

Whether controlling the fever aggravates or lessens the abdominal lesions is not known, but these lesions are sometimes worst when the fever is naturally mild. However, it is generally conceded and sought, as a comforting and life-saving ordinance, to, in a measure, control the fever. The remedies for this have been varied and numerous from time to time. Within a few years the coal-tar antipyretics and cold bathing have nearly superseded all others for this purpose. While both are promptly and definitely effective in temporarily reducing the body heat, they have no power to shorten the disease. The results from the former have not been satisfactory, and their use for this purpose is being discarded by common consent. While the cold plunge-bath has given more satisfactory results than the coal-tar products, it is a harsh proceeding, and as the object can be attained probably as effectively and much more agreeably by tepid and cold sponging, this may replace it. The value of purgation as an antipyretic measure in typhoid has, I believe, been generally overlooked. While it has an insignificant effect on the fever of pneumonia and most other pyrexias, it has, in my experience, a most decided and more prolonged effect than other remedies in the more advanced stages of typhoid.

Perhaps greater attention has been given to the treatment of the abdominal symptoms and lesions than to the general fever. So many remedies have gained repute in the treatment of these that it becomes an important duty to eliminate such as have no real value. An understanding of the disturbed physiological conditions of the intestinal secretions will give the rationale for treatment in this respect which, as will be seen, has been amply verified by experience.

The normal secretions of the alimentary canal vary in character in its different parts. The secretions of the mouth render the food slightly alkaline when it reaches the stomach. The secretions of the stomach leave it strongly acid when it passes into the duodenum. The secretions added to it during its passage through the small intestine gradually neutralize the acid, and it becomes alkaline in the lower part of the ileum; this is again neutralized when it passes into the colon. The alkaline saliva stimulates the secretion of gastric juice, and the acid gastric juice stimulates the alkaline intestinal secretions.

These conditions are seriously disturbed in typhoid fever. The mouth becomes dry and parched, with the secretion of saliva in measure suppressed. The secretion of gastric juice is diminished probably through the general effect of the fever as in the case of the saliva, but also by the withdrawal of the stimulus of the saliva and food. The normal acid stimulus and neutralizing agency from the gastric juice is thus in great part withdrawn from the intestinal glands. The glands in the lower part of the ileum and adjoining mucous membrane are ir-

* Read before the Ontario Medical Association at Windsor, Ont., June 3, 1896.

ritated and cause an increased flow of the alkaline secretions of this part of the bowel, and the diseased part is bathed in an excessively alkaline solution which favors the sloughing and ulcerating process. The virus of typhoid seems to thrive in alkaline media; that portion of the alimentary canal bathed in it, the blood and the parotid glands, that have the most strongly alkaline secretions of the salivary glands, are the parts primarily affected. But those parts bathed with acid secretions are free from primary attack.

The abnormal conditions of the digestive tract are diminished secretion of saliva and gastric juice and increased alkaline secretion, with decomposing mucus and sloughing of the mucous membrane of the small intestine. As the noxious excrement passes over the colon it irritates its mucous membrane, and thus nature undertakes to cure by establishing a diarrhea. The natural conditions of the secretions can in a measure be re-established by the administration of purgatives and mineral acids, and experience bears testimony to the utility of both these remedies; while the use of alkaline remedies, so far as statistical collections are of value, have been shown to be injurious.

By the use of purgatives we increase the flow of gastric juice, intestinal secretion, and bile, which are the natural antiseptics of the contents of the digestive tract, and are thus made to constantly bathe the diseased part and wash away the noxious accumulations. Enemata have been much used of late for the removal of the excrement from the intestinal canal. While an enema will usually unload the large intestine and sometimes stimulate the lower part of the small intestine to unload itself, it usually leaves the upper part constipated and is not so useful as purgatives. The purgatives used should be such as stimulate the secretions without causing undue irritation. Hyd. sub. mur. and mag. sulph. I believe to be well suited for this purpose. Purgatives do not irritate or stimulate the unhealthy as they do the healthy parts, but probably, in the case of calomel at least, they have a soothing effect on the irritated portion.

Muriatic and nitro-muriatic acids have been more constantly used in this disease than any other remedy, and when given in simple elixir, and unadulterated with disagreeable drugs, are taken with relish by nearly every patient. Their use stimulates the normal secretions, which improves digestion and aids in keeping the digestive tract in a septic condition. With these facts in their favor it is scarcely possible that their discreet administration can do harm, and they may safely and, I believe, profitably be left on the list of remedies for this disease.

Opium is a necessary remedy for the relief of the pains and restlessness arising from the abdominal lesions. It may also be useful in quieting the irritation of the diseased portions of the mucous membrane, but care should be taken to administer purgatives at suitable intervals to maintain the free secre-

tion of the healthy portion of the intestines and the proper flushing of all.

Of late years a great deal of attention has been given and much experimentation engaged in to test the value of antiseptic treatment. The object has been to combat the disease by the local effect of germicides to the alimentary canal. These experiments have not as yet resulted in any practical value, if they have not indeed proved harmful by leading to the indiscriminate use of drugs from which no benefit has been shown. Whether the bacteria found in the excrement are the cause or result of typhoid fever is not satisfactorily determined, but probably the latter; and if so, if it were possible to effectually destroy them by the application of antiseptics, it is quite possible the effect would be injurious, as the decomposition of organized matter without the reformation of lower organisms would probably be much more injurious to animal life than when the latter are in active formation. However, it seems preposterous that the small doses of germicides that can be given could have any effect as such after passing to the seat of lesion mixed with quarts of intestinal secretions, etc. Supposing the bacillus of Eberth to be the cause of the disease, the present mode of encompassing its destruction by the local effect of germicides cannot be justified on rational grounds, for its reservoirs are far removed from the surface of the intestinal mucous membrane—viz., the mesenteric glands, spleen, and probably the blood.

It is pretty satisfactorily established that malaria is caused by micro-organisms in the blood, and that these are lethargized by quinine, and their pathological effects neutralized. Had the causation in this instance been known before the antidote and a germicide been sought on current theoretical grounds, quinine would have been the last remedy thought of, and probably its use in the disease would never have been known. Judging from analogy and granting the bacillus to be the real entity of causation, this knowledge would be of little value in finding the antidote. All analogy shows that a specific cause requires a specific antidote that cannot be deduced from any known laws. And this is borne out by experience; for no satisfactory results have been shown from the use of germicides, as such, in this affliction.

Since quinine was known to be so effective in malaria it has been much used in typhoid. At one time it was extensively used in large doses as an antipyretic, but of late years it has been superseded for this purpose by other measures; but it is still much used in moderate doses as a matter of routine, on the grounds of its doing no harm if doing no good. So far as my experience goes, and I have used it a great deal, it is of no value and should not be used except where there is a malarial complication.

Tympanites is a condition for which turpentine has been lavishly extolled and extensively prescribed; but, besides its being a nauseous and irritating medi-

cine, it has not, in my experience, nor has it I believe been satisfactorily shown from the experience of any, to have been a valuable and harmless remedy for this purpose. I have had many cases of the most grave tympanitic distension with abundant fetid diarrhea which the free use of enemata and the administration of turpentine failed to relieve, but a couple of drachms of mag. sulph. have relieved promptly and effectually. Turpentine in my hands is usually taken with reluctance and frequently nauseates the patient, and the advantages claimed for its use can be better attained by other measures, and I believe it should be eliminated from the remedies used in typhoid fever.

Nitrate of silver has, since the forties from time to time, been proclaimed as a specific for the bowel lesions by various observers, but it is inconceivable how the small dose that can be administered can have any appreciable local effect when it reaches the diseased part. The results from its use have not shown it to be of any real value.

Remedies that have been sufficiently tried without any positive value should, in mercy to the patient, be eliminated from the treatment of this disease; and when this is done few will be left. When specifics are not available all that can be done is to assist nature to effect the cure. Her chief efforts are directed to throwing off the noxious matter from the alimentary canal and in this we can give valuable assistance.

To briefly summarize: During the stages when the appetite is greatly impaired, milk, plain or peptonized, alternated with beef tea and broths, will form a satisfactory diet. When milk is distasteful or the appetite craving I have given oatmeal gruel, soda biscuit, and egg with coffee with satisfactory results.

I am guided in the administration of alcoholic stimulants by the condition of and their effect on the pulse, and the avidity with which they are taken by the patient. If the pulse is improved and the patient comforted by their use, I give them freely; if the reverse is the case, I suspend their use.

During the forming stage the coal-tar products, of which I prefer equal parts of acetanilid and phenacetin, may be profitably used for the relief of superficial pains in head, loins, etc., and general restlessness, when these exist. For the first week a brisk purgation should be kept up. For this purpose I prefer to give calomel every 3 hours, alternated once in 24 hours by a dose of mag. sulph. At the commencement of the second week 10 to 20 m. of acid. nit. mur., dil. in sweetened water, every four hours, should be given and continued so long as taken with relish and retained by the stomach. After the first week purgatives may be given at considerably lengthened intervals, but the natural diarrhea, which usually exists at this time, should not be relied on to flush the bowels; for it is generally limited to certain portions, and does not cleanse the entire canal as purgatives do. By the purgative treatment, the temperature is kept well in check;

but tepid bathing once or twice a day will add to the comfort of the patient. Should the temperature require restraint, tepid or cold sponging at intervals of four hours, in connection with the above, has always had the desired effect, in my experience. When there is pain and restlessness, arising from the abdominal lesions, I have always had the most satisfactory results from the moderate use of opiates.

Since reducing my drugs, which at one time were numerous, to the above-mentioned five, I am satisfied of their great value to my patients. When this treatment has been begun not later than the third or fourth day of the disease, the fever has in every instance been reduced to moderate bounds in a few days, and the graver symptoms—such as delirium, meteorism, and hemorrhage—have not occurred in any case; the appetite is soon restored, and in many cases convalescence is established between 5 and 15 days—results which I have not had from any other treatment. When the treatment is not begun until the later stages, I have found it equally satisfactory in relieving all the graver symptoms above mentioned, restoring the appetite, increasing the strength, and in every way adding to the patient's comfort. Ulceration and hemorrhage are no bar to this treatment. I do not consider hemorrhage fraught with so much danger as many do. In my experience it has not been the cause of death in any case, and patients are often relieved by it. I do not approve the use of astringents for its relief. Quietude and opium, if there is restlessness, is all I do.

This is in brief the treatment that commends itself to me on rational grounds.

I have notes of 43 cases treated in the above way without a death. Thirteen were apparently aborted between the fifth and fifteenth days. The average duration of illness was 24 days. During the early part of the same period I have a record of 41 cases treated in the orthodox way with antipyretics, antiseptics, turpentine, quinine, enemata, restraining supposed excessive diarrhea with opiates, astringents, etc., with an average duration of 32 days and 3 deaths. Of these 1 died on the thirty-fourth day of a pneumonic trouble; 1 on the twenty-second day from kidney complication; and 1 on the forty-third day from occlusion of the bowel with stercoraceous vomiting, two weeks after perforation had been diagnosed. These consisted of both hospital and private cases. In reviewing reported cases that have terminated fatally, I notice that a large proportion have died after astringents and opiates have been given to check the diarrhea.

I am satisfied the prevalent fear of the results of the administration of solid food is not well grounded, but I have neither statistics nor personal experience to justify a definite statement. It will be conceded that a disease causing such rapid and persistent waste of tissue requires that the system should receive the best possible nourishment; and that this can be secured by liquid diet I very much doubt. Since the intestinal lesions have been

known, it has been held that solid food must be injurious, and this view has become so impressed on the attendants that any increase in fever or untoward symptom occurring after partaking of anything of this nature is invariably attributed to it. It is difficult to understand how solid food that becomes thoroughly liquefied before passing through the diseased portion of the bowel could be more injurious than the accumulation of milk curds and the fetid discharges that the diseased parts must be pretty constantly bathed in. Persons in health would be kept in a half-starved condition on the ordinary diet of typhoid, and what must that starvation be with this unusual drain on the system? Simply what is the testimony of most patients in the latter part of the disease—agonizing!

St. Catharines, Ontario, Can.

A CASE OF CHOLECYSTECTOMY AND OÖPHORECTOMY, WITH REMARKS

By BERNARD GORDON, M.D.

Visiting Gynecologist to Beth Israel Hospital, New York

THE patient, B. P., was admitted to Beth Israel Hospital on the 24th of March, 1896, for an operation for a pelvic cyst, which could be distinctly felt on the right side of the uterus. She was 32 years of age. She began to menstruate at 15 years and continued regularly every four weeks without pain, the flow lasting from seven to eight days. She was married at the age of 18 and had five children. The last child was born four years ago. About 14 years ago she had an attack of severe colic, which she located at the epigastrium. This lasted for about 15 minutes. She had recurring attacks every three or four weeks for two years, and after that she never had another. She has suffered attacks of nausea and vertigo, which continued until the operation. About a year and a half ago she began to feel pain in both ovarian regions, more marked on the right side. She had also occasional chills. Her last menstruation, which was about eight days before admission into the hospital, was accompanied by severe pain.

On inspection of the abdomen a distinct bulging was apparent near the right inguinal region, immediately above the os pubis. Examining bimanually, the left ovary could be felt enlarged to about three or four times the normal size; its consistency and shape conveying the impression of cystic degeneration. The tube on the same side was normal. The uterus in its entirety was displaced anteriorly and to the left, anteflexed, soft, and somewhat movable. On the right side a large, round-shaped cyst could be felt. The upper border was indistinct and could not be mapped out, as the examination was made gently in order to avoid rupture. It occupied about half of the pelvic cavity, displacing the uterus to the left and anteriorly. Behind the uterus, wedged in near the cyst, was the right ovary, slightly enlarged. The nature of the cyst and its origin were not determined. It was considered pelvic from its presence there.

After a careful preparation for a laparotomy the patient was narcotized on March 26, 1896, and placed upon the operating-table in the Trendelenburg posture. An incision was made about three inches in length in the median line, beginning about $\frac{1}{4}$ inch above the symphysis pubis, opening the peritoneal cavity, retracting the abdominal walls, and covering the intestines by a sterilized-gauze pad. The uterus and both tubes were normal, the right ovary was slightly cystic, and the left was suppurating. I removed the left ovary, punctured the little cysts of the right, and began to look for the large pelvic cyst. There was none to be seen. What had become of it? If it had ruptured, the sac would have been found, but there was no trace of any. The idea of a floating kidney suggested itself. The patient was then lowered into the horizontal position, and not a kidney, but a cyst, appeared at the upper end of the wound. I extended the incision over the tumor up to its origin, which was below the liver, where the gall-bladder should be. After ligating doubly I removed it. Then removing the intra-abdominal gauze pads I closed up the abdominal incision, which was about seven or eight inches in length, without leaving any drainage in the wound. An abdominal bandage was applied and the patient was put to bed.

The *ovary* was about two inches in diameter, spherical in shape, and congested in several spots, especially in one part where it showed an acute inflammatory condition. It was somewhat tense, but fluctuating between the fingers. On one side there was a protrusion of the covering membrane under which a greenish pus could be distinctly seen. The *cyst*, or the distended gall-bladder, was about eight inches in length and about two and one half inches in diameter; sausage-shaped, distended, and ramifying blood-vessels were seen running longitudinally from its origin toward the apex. It was very tense, translucent, contained a colorless, thin, gelatinous fluid and three gall-stones of the size and shape of nuts and of chocolate color.

The most unpleasant symptom that the patient had after the operation was the constant *vomiting* during the first five days, but it was mainly due to the irritation of the stomach from the ether. I felt confident that her condition was not alarming: First, because her pulse was good, ranging between 105 and 115 per minute; second, because her temperature was fair, between 99.2° F. and 100.4° F.; third, because she complained very little of pain; fourth, because she had two fair movements of the bowels on the third day; fifth, because the expression of her face showed no depression; and sixth, because there were no other complications. The fourth day, though, gave me some anxiety, as the vomiting began to take advantage of her vitality. It was on the 30th of March, at 4.30 a.m., when she fainted. Hypodermatic injections of strychn. sulph. gr. $\frac{1}{60}$ were used freely. In the latter part of the day her condition began to improve. The vomiting became somewhat less in frequency.

Although she had a disagreeable and restless day and night on the 31st of March, and was in a delirious condition at times, still her general condition began to show improvement. April 1 the patient stopped vomiting and tolerated matzoon. April 2, milk diet was given. April 11, the patient received full diet without digestive agents.

Now with regard to *medicinal* treatment. The patient received calomel gr. $\frac{1}{2}$ every half-hour from the 24th hour after the operation, with the object of controlling to some extent the vomiting, until about 10 doses were given. Then bismuth and cerium oxalate were given, but also without the desired effect. On the third day cocain gr. $\frac{1}{4}$ was tried every two hours, in vain. On the fourth day sodium bicarbonate, and later liquor sodii citr. N.F. began to show a beneficial effect. On the same day calomel was again commenced, but in smaller doses, namely: gr. $\frac{1}{10}$ every hour for the length of 24 hours.

Meanwhile the patient received one evacuating enema of 2 pts. of warm water, $\frac{1}{2}$ oz. of ox-gall, and $\frac{1}{2}$ oz. of turpentine; and a few nutrient enemata of brandy 1 dr., milk $\frac{1}{2}$ pt., and one egg, daily until the fifth day after the operation, or the 1st of April. She was catheterized during the first three days every five or six hours.

The stitches were removed partly on the eighth and the remainder on the tenth day. Union was perfect, except slight suppuration in a superficial stitch-wound, which improved within a week. Since the 11th of April the patient has been in good condition, without pain, with normal temperature and pulse, and just at the end of four weeks she was up and about in the ward.

Remarks.—This case is especially interesting for the following four reasons: I. Judging by the history of the case, the patient began to suffer cholelithiasis about 14 years ago, and after the lapse of two years, during which time two stones entered the gall-bladder and a third obstructed the cystic duct, an equilibrium was established by nature in some way unknown to me. In other words, the patient had nothing to complain of. So it took fully 12 years for that bladder to become so much distended by its own secretion. There are three kinds of cases of cholelithiasis requiring operative interference: (a) Obstruction in the cystic duct, where the bladder becomes much distended, but slowly by its own secretion, and no jaundice is present. (b) Obstruction in the common duct, where the gall-bladder becomes rapidly distended by bile, and jaundice is present. (c) Obstruction in the hepatic duct, causing atrophy of the gall-bladder and severe jaundice. It is evident that the above described case belongs to the first class.

Now I will mention in brief the few methods of operative interference. 1. *Cholecystendysis*, described by COURVOISIER. The incision is made in the region of the gall-bladder; the bladder is then opened; the stones removed; the rent closed by sutures; the fundus is attached to the abdominal incision,

which is then closed. 2. *Cholecystostomy*: This is similar to the above method, except that a fistulous communication is left between the gall-bladder and the exterior. Dr. MAYO ROBSON recommends this method, and it is most generally used by surgeons. 3. *Cholecystenterostomy*: Dr. MURPHY recommends this operation, which he performed on 17 cases with great success. He connects the gall-bladder with the highest possible part of the intestine by means of the button known by his name. 4. *Cholecystectomy* is the operation of removing or excising the gall-bladder. This is done in cases where there is no hope for the gall-bladder to return to its original function. For instance, in the above-described case the bladder was distended for 12 years, and to such an enormous extent that it would have been impossible for it to resume its natural function.

II. The second point of interest in this case is that both ovaries were diseased—one with cystic degeneration and the other with suppuration—while neither the tubes nor the uterus was affected.

III. The patient's life was in imminent danger on account of the pointing abscess in the left ovary, which might have ruptured any moment and produced a general peritonitis. Still the patient complained very little of pain in the left side, and would not have agreed to an operation if not for the pressure and pain caused by the gall-bladder on the right side displacing the uterus and adnexa to the left.

IV. The gall-bladder was so enormously distended as to reach into the pelvic cavity.

New York; 132 Henry street.

ON A NEW TREATMENT OF SARCOMA; WITH REMARKS ON THE CURATIVE ACTION OF ELECTRICITY IN TUMORS*

By G. BETTON MASSEY, M.D.

Physician to the Torrensedale Sanatorium and to the Gynecological Department of Howard Hospital

DURING the early days of the electric treatment of fibroid tumors of the uterus under the impetus given to this work by APOSTOLI the impression prevailed that the proper method required a more or less complete destruction of the tumor by electrolytic decomposition, though this was not taught by the introducer of the method himself. The result of this purely mechanical theory was a hastily produced crop of electro-therapeutists, who, in complete ignorance of the physics and technique of medical electricity, purchased an outfit and essayed the most delicate applications at once, with but half a heart in the work to compensate a deficient skill.

To those engaged in a less meteoric inquiry into the effects of electricity upon tumorous growths the conviction must be forced that an actual destruction by electrolysis is rarely the best form of treatment in large tumors, even in cases where the situation of the growth gives ready exit to the gases, liquids,

* Read at the meeting of the Medical Society of Pennsylvania, at Harrisburg, May 21, 1896.

and debris that result. For one thing, such an immediate destruction differs from the use of the knife only in being bloodless, the enormous current strength necessary for this mode of dissolving tissue (from 700 to 1000 milliamperes) necessitating the placing of both poles within the tissue to be destroyed, and while such a method commends itself as appropriate in situations too vascular for the knife, the inclusion of both electrodes within the morbid area deprives it of the advantage of current diffusion peculiar to the monopolar method, by which the ramifications of the growth are sought out and followed by the current as paths of least electrical and physiological resistance.

Owing to the difficulty of passing more than from 200 to 400 milliamperes through a circuit made up of an active electrode in the tumor and an indifferent electrode at a distance on the healthy skin, this electric dissolving of tumors is only possible by the monopolar method in small growths; yet it is well known that fibroid tumors of the uterus as large as the adult head have ultimately disappeared under a series of monopolar applications of no greater strength than 150 milliamperes. Of what nature, then, is this remedial impression of the current in these cases, when the sum total of all the applications taken together is insufficient to chemically destroy more than a small fraction of the tumor that has disappeared?

The solution of this question would seem to me to lie in the action of the electricity on the trophic conditions of the growth. The true nature of tumors of non-microbic origin is yet a matter of speculation, the most plausible theory being that of COHNHEIM, with which you are doubtless familiar, in which the hypothesis is advanced that non-microbic tumors have their origin in "tissue rests" of embryonic cells, which, after lying inactive since the development of their surroundings into mature cells, begin proliferating under the influence of some exciting cause, becoming the matrix of the tumor. That this left-over fetal tissue did not proliferate at some previous time since infancy is due to an inhibiting influence exercised by surrounding cells, or possibly the trophic centers of the part, an influence otherwise known as "physiological resistance," which, before the exciting cause of proliferation became effective, was sufficient to keep the embryonic islet at rest. A tumor results, therefore, from a relaxation of some kind of physiological control exerted by the adjacent structures over a latent, usually prenatal, matrix.

Such is the accepted theory, and I notice that it is fully indorsed by SENN in his recent treatise on the "Pathology and Surgical Treatment of Tumors." In spite of the fact, however, that SENN shows his belief in this hypothesis in nearly every page of his interesting work, he completely ignores the explanation it offers of the disappearance by absorption of benign tumors of the uterus after electrical treatment and after the menopause, conditions which can readily be conceived to act by

restoring to the surrounding tissues, or to the trophic nerves, their normal restraining power over the embryonic proliferation. This denial of the logical sequences of his accepted theory is emphasized on page 21, where he italicizes the statement that "a tumor never disappears except by removal or destruction," a statement which not only overlooks certain consequences of his previous reasoning, but denies the recorded observations of a number of scientific men who are entitled to at least as much credit for truthfulness as himself.

The conserving powers of nature are well known to be such that a piece of beef, or even of bone, aseptically placed within physiologically active tissues will disappear by absorption. Such may also be made the fate of benign tumors when arrested in proliferation by electro-puncture or other forms of electro-chemical applications in locally lethal doses, particularly if, at the same time, the repressive forces of the tumor's environment are again called into existence by the stimulant action of the current. So much for the electrical cure of benign tumors, which is merely prefatory to what I have to say of the cure of certain forms of cancer.

I have already published instances wherein cancerous growths have been exterminated by a combination of destructive electrolysis for the hasty disposal of the central mass of the tumor, followed by dissemination of the current from a single pole placed in the cavity from which a lethal current is sent throughout the remotest ramifications of the proliferating mass. It is to an improvement on this method that I wish to direct your special attention to-day, in the firm conviction that it gives us a remedy against the form of neoplasm known as sarcoma, which should supplant all other plans of treatment, at least until the longed-for antitoxin cure for this dread disease shall have been discovered.

The essential feature of this method is the interstitial diffusion by electricity of the oxy-chlorides of mercury and zinc in such locally overwhelming, yet gently applied, dose that the debased cell-life is arrested and made a prey to the normal activities of the surrounding healthy tissues, which dispose of the devitalized cell-growth, partly by external discharge and partly by absorption and excretion. It is of course necessary that all portions of the growth be impregnated with these powerfully lethal agents, and hence only those tumors yet distinctly local are adapted to it.

This new method of treating a form of cancer, which I now confidently commend to the profession for the first time, requires a soluble zinc electrode as positive pole, freshly coated with mercury at each application and properly insulated. This electrode, of a size and shape adapted to each case, is inserted into the tumor after a small opening is made by negative electro-puncture under the chloride-of-ethyl spray, a few drops of cocaine solution is dropped around the instrument if the puncture be through the skin, and, with a properly adjusted large negative pad as indifferent pole, a current of from 100 to

200 milliamperes may be gradually turned on with very slight discomfort. Subsequent treatments are made even less painful by pouring the cocaine solution into the patulous opening thus obtained a few minutes before inserting the electrode. The cocaine is diffused into the immediate neighborhood of the tumor along with the electrolyzed mercury and zinc by anaphoresis.*

The applications are made daily, the wound, which is mainly subcutaneous, being dressed with acetanilid ointment and antiseptic cotton. Under this method the tumor is gradually disintegrated and much of it discharged through the opening; the area of induration about it shrinks progressively, until finally the malignant growth is replaced by a healthy wound, which is ultimately allowed to heal, but not until the whole of the morbid tissue is either destroyed or transformed into granulation tissue.

The advantage of this method over removal by the knife is that all portions of the growth, including its remoter ramifications, are reached by the diffusing current and chemicals, and the seat of malignancy kept under observation until actual cure occurs. It takes a longer time than a surgical operation, of course, but false hopes of non-recurrence are avoided by the fact that healing is not permitted until an absolute cure is certain, the treatment being kept up until we are assured that no morbid cells remain as a nest for future relapses.

Philadelphia.

ASEPTOLIN†

By A. L. LENGFELD, M.D.

Professor of Materia Medica and Medical Chemistry, Medical Department, University of California

"ASEPTOLIN COMPOSITION"

Water (H_2O)	97.2411 per cent.
Phenol (C_6H_5O)	2.7401 "
Pilocarpine-phenylhydroxide ($C_{11}H_{16}N_2O_2.OH.C_6H_5$)	0.0188 "
	100.00 per cent."

AS Dr. EDSON, in his article (N. Y. *Medical Record*, Feb. 8, 1896, and N. Y. *Morning Journal*, Feb. 7, 1896) recommending aseptolin for the treatment of phthisis pulmonalis, plainly states that he does not desire to have his discovery "classed with that of a proprietary remedy," and, furthermore, that "the new agent can be used as freely as any compound or combination of the Pharmacopœia," it is fair to assume that he invites criticism and is willing to accept suggested improvements.

As most physicians are not chemists, and as Dr. EDSON is evidently no exception to this general rule, he may be pardoned for having admitted into his article a so-called chemical report which is full of errors and absurdities and is, probably accidentally, misleading. Since Dr. EDSON plainly states "that there is no reason why a competent chemist should not make it" and, furthermore, that "it is not very

difficult to make, provided one has the apparatus and is sufficiently careful," it is difficult to understand why there should be so much ambiguity in describing the process, the methods, and the chemicals used, and why specially designed and extravagantly expensive chemical apparatus (*vide* his letter in *Examiner*, Feb. 28, 1896,) should be necessary.

A careful reading of Chemist MOTT's report and Dr. EDSON's remarks on the same, and a careful sifting-out of all that is equivocal in the formula, show that "aseptolin" is practically nothing but a solution containing approximately 0.02 per cent. (0.0188) of pilocarpine phenyl-hydroxide (commonly called pilocarpine phenate) in a 2.75-per-cent. solution of pure phenol.

Pilocarpine phenyl-hydroxide is not such a difficult chemical to prepare—the phenates as a class are staple compounds and are easily procured. The phenates of K, Na, NH_4 , Hg, quinine, cocaine, and other bases are known and used in medicine, being obtained either by direct union of the base with phenol or by double decomposition, and pilocarpine phenyl-hydroxide can be so prepared without the aid of "apparatus specially imported from Germany." By heating phenol, C_6H_5OH , with the alkaloid pilocarpine, $C_{11}H_{16}N_2O_2$ (not $C_6H_5N_2O_2$) in the proportions of their combining values (not in the proportions given by Chemist MOTT), at a temperature *not* exceeding $100^\circ C.$; or by adding an alcoholic solution of phenol (C_6H_5OH) to an alcoholic solution of pilocarpine, $C_{11}H_{16}N_2O_2$, at a temperature not exceeding $100^\circ C.$, the salt is readily obtained. Dissolving the salt as so obtained in a 2.75-per-cent. solution of pure phenol gives, without the aid of special apparatus and without any special skill, the desired result.

As in one part of Dr. EDSON's paper the salt is described as a "colorless crystalline salt," while in the very next column we are told "that uncrystallized pilocarpine phenyl-hydroxide separates out," it is fair to assume that the substance isolated was inconstant and not of uniform composition. From these published statements it is uncertain whether the solution obtained was one of pilocarpine phenyl-hydroxide in phenated water, or merely a solution of the alkaloid pilocarpine in the same medium.

So little do we know of the character of that "new compound," which, Chemist MOTT says, "you, Dr. EDSON, have after laborious research and experiment produced," that even in giving "its composition as deduced by calculation" wrong statements are made. If pilocarpine phenyl-hydroxide is, as is claimed, a *chemical compound*, its composition deduced by calculation is:

Pilocarpine	68.89
Phenol	31.11
	100.00

and not

Pilocarpine	53.92
Phenol	46.08
	100.00

* It is a question whether this term, anaphoresis, should not replace cathaphoresis when the positive pole is employed.

† Read before the California Academy of Medicine.

Before many weeks, however, pilocarpine phenyl-hydroxide will be an article of commerce, as easily obtainable as are the other salts of this alkaloid. As Dr. EDSON admits that "the formula is by no means complicated," and that "while the other ingredients are at hand, the salt alone is as yet not procurable," it necessarily follows that when it is obtainable any pharmacist will be able to prepare the aseptolin as scientifically and as accurately as it is to-day by experienced chemists, and the many misleading statements as well as the complicated methods of Chemist MOTT and the extraordinarily expensive special apparatus of Dr. EDSON will fade away.

Since much stress is laid upon the necessity of using only the purest phenol, and as a so-called process is given for preparing their "highly-purified phenol," a few words about this chemical may not be uninteresting. Phenol, phenyl-hydroxide, or carboic acid, as it is called, the formula of which is C_6H_5-OH , and not C_6H_7O , as so repeatedly written by Chemist MOTT, can be obtained in a state of absolute purity from various manufacturers, prepared either directly by the usual processes from coal-tar or prepared synthetically from benzene, C_6H_6 , H (phenyl-hydride), or from aniline oil, $C_6H_5.N.H_2$ (phenylamine). Chemically pure phenol is an article of commerce, free from para-cresol and other impurities; and the process given by Chemist MOTT will not purify it from traces of these substances, unless, perhaps, the temperature is very carefully watched and regulated, a point which he neglects to mention. "To reject the first 10 per cent. so condensed, utilizing the remainder with the exception of the last 10 per cent., which is likewise rejected," is a process identical with the directions given in the U. S. P. for the preparation of distilled water, and, while of great importance in the manufacture of this simple Pharmacopœia remedy, is practically valueless for the purification of phenol.

Chemist MOTT says: "The 'highly purified phenol' is diluted with distilled water until the percentage of phenol is reduced to exactly 2.75 per cent. . . . This is introduced into glass-stoppered receivers" (retorts or flasks, I suppose, were meant) "which have been thoroughly cleansed with boiling water. In the receiver the right proportion of the alkaloid pilocarpine is put, so that as the phenol distills over and condenses, it immediately combines with the pilocarpine in the production of the fluid. The temperature of the receiver is kept . . . sufficiently high to insure the desired union. . . ."

Why this crude method should be followed instead of the simpler one of preparing a pilocarpine phenyl-hydroxide as already described, and merely dissolving it in the 2.75-per-cent. phenol solution, is difficult to answer, but probably explains the trouble they have had in preparing "aseptolin of a uniform composition and of an absolutely colorless physical appearance." It is probable, however, that the expert chemist who suggested this method remembered the general rule that alkaloids were less

soluble than their salts, and that they were more soluble in hot H_2O than in cold H_2O , and, therefore suggested the plan of placing the alkaloid in the receiver, allowing the distillate to come over at a comparatively high temperature so as to permit the phenol to combine with the alkaloid pilocarpine, under apparently the most favorable conditions, gradually converting it into a phenate, to be immediately dissolved in the excess of phenated water.

San Francisco.

THERAPEUTIC ITEMS.

Mentho-phenol as an Antiseptic.—SCHAEFER (*Bost. Med. and Surg. Jour.*, 1896, CXXXIV, p. 111)

The writer finds that, by mixing 1 part of phenol with three parts of menthol and melting the mixture, a transparent fluid having an aromatic odor and taste is obtained possessing strong antiseptic and analgesic properties. Its sp. gr. is 0.973. It is nearly insoluble in water and in glycerin, but dissolves readily in alcohol, chloroform, and in oils. It dissolves iodine, iodoform, and aristol. It may be used preparatory to cauterizing chancroidal sores and curetting necrotic surfaces. As a mouth-wash, 2 drops mixed with an ounce of an aqueous menstruum may be advantageously employed. A case of abscess under the finger-nail was painlessly lanced under a warm 5-per-cent. aqueous solution of mentho-phenol, and rapidly healed when dressed with gauze containing 2 per cent. of the antiseptic. Equally good results were obtained in painful suppurating otitis media et interna. Wounds washed with a warm 2-per-cent. solution of mentho-phenol rapidly healed. In dental practice it is also useful, acting as a disinfectant and anodyne anesthetic.

Bromoform in Whooping-cough.—M. MARFAN (*Rev. internat. de Méd. et de Chir.*, 1896, Apr. 25)

The writer has employed bromoform in 40 cases of whooping-cough with excellent results. He considers it superior to antipyrine or to belladonna for diminishing the intensity and the frequency of the attacks of cough. The following is his formula:

Bromoform	48 drops
Oil Sweet Almonds	20 gme. (5 fl. dr.)
Powdered Acacia	4 gme. (1 dr.)
Powdered Tragacanth	2 gme. (½ dr.)
Cherry-laurel Water	4 gme. (1 fl. dr.)
Distilled Water	to make 120 gme. (4 fl. oz.)

For children under six months the daily dose of bromoform is 2 to 3 drops; for children of from six months to a year, 3 to 4 drops; given in three portions.

Under the influence of this treatment the author states the following modifications will generally be observed: For the first two or three days the attacks will appear to be aggravated, both in frequency and intensity; but from the third or fourth day a marked relaxation occurs, and the attacks diminish in number and intensity. The vomiting disappears, the appetite returns, and the child recovers without any other symptoms manifesting themselves.

Of course there are some cases in which no results are obtained with bromoform; generally, however, the author employs this drug in the beginning of the disease in preference to all other antispasmodics.

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A Retrospect—A Forecast

On January 1, 1896, the AMERICAN MEDICO-SURGICAL BULLETIN became a weekly, after an honorable and honored career as a monthly and a semi-monthly of eight years' duration. The publishers and the editors of the BULLETIN were actuated to the change by the knowledge that the medical profession was not fairly represented by any medical weekly published on this continent, and the time seemed opportune for cultivating the untilled field. The BULLETIN has won its way into the front rank of weekly medical journalism, and to-day it stands *facile princeps*.

The journals which, for a varying period of time—from a few years to thirty-three—had been satisfied with motion along the beaten track of old-fogyism, and whose policy has been dictated by the selfish interests of publishers who place the sale of production above the publication of fearless, independent, scientific truths, have been forced to take a back seat. Wide over the continent has the BULLETIN spread; and the words of greeting, of good-will,

of encouragement, daily arriving from north to south and from east to west would fill many issues of the BULLETIN. The spirit of fair play and the love of the right which breathe throughout its editorial columns, the force of science which bristles from its leaders and original articles, the freshness of the news which each issue carries, the mirror of progress found in its abstract departments,—these are the qualities which have won for it thousands upon thousands of subscribers and friends.

Our readers have noticed that the BULLETIN has been the first, often the only, medical weekly to champion the cause of the profession when indignity had been offered it; that the BULLETIN has published in advance of its competitors the essential of the transactions of the national societies; that the BULLETIN has not hesitated to publish criticism of an adverse nature to views expressed editorially; that the BULLETIN has without fear or favor exposed "fakes," even though foisted upon the profession by apparent leaders in medical journalism; that the BULLETIN has published contributions, not only from men who have secured eminence, but also from obscure but honest and scientific workers in the profession.

Facts that are patent need no elaboration. The BULLETIN only refers to its accomplishments during its honorable career in order that it may properly forecast the future. In this future, as in the past, the BULLETIN proposes to tower head and shoulders over its worthy competitors, satisfied with its reward—the approbation and the support of the profession. Stability, integrity, high purpose, love of the right, and hatred of the wrong—such is and will ever be the watchword of the BULLETIN.

THE LEGAL STATUS OF THE SKIAGRAPH.—A Boston court has ruled out X-ray photographs of injuries to a boy's head, which figured as exhibits in a \$50,000 suit for damages. Corporations will probably file away reports of this decision in the case of *Renford vs. Rogers* for future use.

AN APOLOGY TO THE "RECORD."—Our very esteemed and yet a little-bit-jealous friend the *New York Medical Record* objects to our comment on its new dress. We hasten to offer our most humble apologies. The intent of the BULLETIN was to assist it in its struggle during these hard times by calling the attention of the thousands of readers of the BULLETIN to the fact that there had been prepared for the medical public a new guide-book, and

this by the *Record*, and we would emphasize our entire disinterestedness by stating that we have sent no bill to the *Record* for the advertisement given. We still further show our good-will by publishing in this issue a critical analysis of this guide-book, and we state again that no charge is made for the same. Under the circumstances we shall be wofully disappointed if, in its next issue, the *Record* does not thank us. We will be pleased to exchange with the *Record* from this time on, as a voucher of the fact that we bear it no ill-will and are prepared to live in peace and amity with it under the single purpose of advancing the cause of scientific medicine and the annihilation of fakes—in particular, *fake cures*. Shake hands, *Mr. Record*! Put on your new dress again! We promise you that henceforth we will not consider the color of the dress as typifying your feelings, but as evidence of the renewed spring-time of your existence, even as when nature clothes herself in green. The omen is that “now is the winter of our discontent made glorious summer” by the AMERICAN MEDICO-SURGICAL BULLETIN.

A NEW GUIDE-BOOK.—In a recent issue of the *Medical Record* we find an article on “Summer Health Resorts.” We learn from the opening paragraphs that the article is written “with the hope of rendering some practical aid” to busy physicians when confronted with the necessity for the “solution of the problem of where patients shall be sent for the summer.”

The author says: “A ‘change’ is, in almost every case, the object sought for by the physician. In one case it is a change of air; in another a change of scene and occupation; in a third a change of elevation and temperature, etc. Very frequently it must be a change in all these particulars—a ‘complete change,’ in other words.” The paragraph we have quoted is evidently intended by the writer to aid in lowering us gently from the plane of lay reading to that of medical reading of this class. He thinks we are fresh from the column of local news in some country weekly, and wishes to save us from any intellectual shock. It would, indeed, be captious in us to comment upon the absence of scholarly or scientific suggestion in the use of such terms as “change” and “complete change.” But would it not be well to mention also the change from linen to flannel shirts, and the change from hair mattresses to areas of corn husks and incidental cobs? Would not a “complete change” include these also? But let us to the theme.

The author first considers seaside resorts, and his

general remarks of the value of seaside influences are just and good. A long catalogue follows of places on our eastern coast. To some of these are allotted a few lines, to others long paragraphs of description; but in most cases the details given are insufficient, if from them one is to make a reasonable choice of a locality for a given patient. Newport is stated to be too well known to need detailed description, and five lines suffice for its disposal. Yet to Saratoga, in another division, the author allots six times as much space. Narragansett Pier is also cut off with a short measure of four lines. The only helpful statement regarding the Pier is, “It lies on the west shore of Narragansett Bay, at its mouth.” In a list of resorts on the Connecticut shore the author places Westport with Fairfield, Saybrook, and New London. Did he ever leave the New Haven railroad at Naugatuck and, in that primitive horse-car, take that mournful ride along the muddy banks of the river to the town of Westport, and does he really consider Westport a summer health resort? Has Norwalk been moved down to the Sound, that it is mentioned in this category, or does the author mean South Norwalk? In the list of health resorts on Long Island we notice “the Moriches” mentioned. We infer that there is one Morich in one place and another Morich in another place. This is new and strange; for last season there was one place named Moriches. We learn that Shelter Island and Gardiner’s Island are “two popular island resorts.” This is indeed surprising. We trust that the author has notified the Gardiner family that their property has suddenly become a “popular island resort,” that they may make preparation to receive invalids. Of course due allowance will be made, by the invalids and their relatives who go to Gardiner’s Island, for the shortcomings of those who have never taken boarders before, and who have hitherto invited the guests who have visited the manor house of the wealthy and aristocratic Gardiner family.

We wonder if Governor MORTON’s elegant home, “Ellerslie,” at Rhinecliff, will be opened as a popular resort, and if President CLEVELAND will also throw open “Gray Gables.” We find no mention made of these resorts.

The White Mountains are called “the grandest and most picturesque of the mountain groups in the eastern half of the United States.” We had supposed that the mountains of North Carolina were so considered, rivaling the White Mountains, as they do, in height and wildness of surroundings. We learn that the White Mountains “are divided into

two groups—the Eastern, the White Mountains proper, and the Western, the Franconia group.” We are thankful to learn what is proper in the matter, for of all things we dislike impropriety. We have often been misled, in our innocence, by guides and circulars similar to those which lay before the author when he prepared this article. Hereafter these shameless publications, which include both groups of elevations under the title “White Mountains,” will bring to our cheek the mantling blush of modesty as we pass by with eyes averted.

In considering the Adirondack Mountains, the aged author refers to them as “up to a few years ago a wild and savage wilderness, unknown but to the hunters, trappers, and lumbermen of that region.” To us, in our youth, a quarter of a century is more than “a few years.” To us, who long since read the plea of Mr. PATRICK H. AGAN, of Syracuse, written in 1872, urging the preservation of the forests from the destruction then impending; to us, who have talked with tourists who have camped and tramped in the Raquette region in the latter part of “the sixties,”—it seems that a portion of the wilderness had been tamed previous to a “few years ago.” After the author’s statement, “The mountains are everywhere covered with dense forests,” would it not be well to add the words *except where the trees have been cut down?* Otherwise we fear the tourist of to-day may feel a general distrust in the author, after traversing the Lyon-mountain region or visiting the southeastern slope of Mt. Dix or the side of Mt. McIntyre at the southern end of Indian Pass. The mountains “afford shelter for all sorts of wild game,” we read. Our enthusiasm is kindled by this statement, and we long to hie away to the Adirondacks, equipped for the pursuit of elk, antelope, big-horns, and bison; we missed these during our visits to the region. But changes will occur, even in spelling. What was Schroon Lake last year, becomes Scroon Lake to-day. Those who have visited this country will be amused at the author’s assignment of the cardinal points of the compass, when he writes: “Scroon, Blue Mountain, Long, and Raquette lakes in the southern part, Elizabethtown and Keene Valley in the east, Chateaugay and Loon lakes in the north, Tupper Lake in the west, and Lake Placid and the Saranac Lakes in the central part of the mountains, are the favorite regions of resort.” Most of the lakes mentioned lie distinctly out of the mountain region, and in the lake region of the “North Woods.”

We must take exception to the statement: “In the midst of the most rugged and beautiful moun-

tain scenery of the East lies the town of Mauch Chunk,” for we have been to Mauch Chunk, as well as to other mountain localities. We quote: “*Saratoga Springs*: Under this class come most of the springs of Saratoga.” We feel at once that we are on the brink of more impropriety. Evidently some springs at Saratoga are Saratoga springs proper, while others are not. No differentiation is made; the author simply abandons us, brutally, to an agony of diffidence. An analysis is given of one spring—the old, old analysis we have avoided reading so often in all the other advertisements of Saratoga we have seen.

“Clifton Springs,” we are told, is “a popular health resort situated on Seneca Lake, 11 miles west of Geneva.” This will be a great piece of news to the inhabitants of the place, for it has always, heretofore, been 11 miles from the lake in question. Something important has occurred in that region. Concerning Watkins Glen we read: “At the head of Seneca Lake, near the village of Watkins, is Watkins Glen, a spot long known for its wonderful gorge and picturesque scenery . . .” We are glad the glen is still known for its gorge, but we must join issue with the author on the statement, “There are several first-class hotels in this neighborhood.” There aren’t.

At last we reach the Berkshires, so justly attractive. But, tut, tut, Mr. Author! Can you say with truth, after traveling along Seneca Lake from Clifton Springs to Watkins, after penetrating even to that central fastness of the Adirondacks, Lake Placid, can you say with truth “nowhere is the air quite so pure and fine, and the foliage so rich and deep . . . as in the Berkshires”?

We confess our disappointment in the article. We expected at least accuracy, and we like a medical flavor in a medical article. We think we could gain more information of every kind than the author gives, by consulting guide-books. We are tortured with the thought that after all we have been reading, not a contributed article, but a “Publisher’s Department,” which should have been printed next to the advertisements which give the reader further information about these “summer health resorts.”

A WORD OF ADVICE TO PROFESSORS AND CONSULTANTS.—The ever-increasing abuse of gratuitous medical and surgical work demands rectification, and for this disease, as well as all others, it is requisite to determine the cause in order to find the remedy. The subject has been worn threadbare in the medical press, but up to date nothing very effective has

been discovered. Our contemporary, the London *Lancet*, in the course of comment on recent editorial utterances of the BULLETIN, lays stress on one of the reasons which exist in London, and the words are applicable with great force to this city and all others where the hospital and the dispensary exist in abundance utterly out of proportion to the needs of the poor.

It appears that in London the hospitals are crowded with people able to pay for services rendered, and yet no method of rigid investigation is in force which would sift the chaff from the wheat. Time and again has the same state of affairs been dwelt upon as existing here, and yet to-day as yesterday the wards of all hospitals, except those under the care of the commissioners of public charities, contain many a sick and injured individual who, were his circumstances investigated, would be found to be in a position to pay a fee, even though small, to some member of the profession who needs it far more than can the hospital ever need the transient glory of announcing in its prospectus that one more pauper has been cared for.

The remaining comment of the *Lancet* puts the question so forcibly that we reproduce it :

We cannot but think that the two main uses of hospitals—to relieve the really poor and to afford means of medical instruction—are far too much lost sight of in our large cities. Some of the special hospitals in the metropolis especially are so comfortable, not to say luxurious, that patients of the well-to-do classes have every incentive to enter them. And, though we should be the last to discountenance comforts for the sick and needy, we question very much whether the funds subscribed by public charity should be expended in providing apartments and attendance fitter rather for the upper classes than the very poor. In our experience tradespeople are usually as well-to-do as medical men, and yet a large proportion of the former do not hesitate to accept public charity when occasion offers. We very much regret to have to point out that there is reason to believe that this unsatisfactory state of things is directly fostered by the want of business capacity and supineness of the members of the profession themselves. The practitioner, in thoughtless kindness of heart, says to his patient: "Oh, I will send you to Mr. X. at such and such a hospital, he will take you in and do it for nothing." Mr. X. is very commonly too kind and good-natured or too blind to his own interests and those of the profession at large to refuse. The patients like Mr. X., find him kind and "clever," and, as a snug room is found for them at the "hospital," they gladly enter it and receive gratuitously the benefits of public charity and medical skill. The individual experience of many of our readers will supply them with instances of this undesirable state of things in sufficient abundance. We believe that the younger members of the profession, especially the consultants attached to special hospitals, would do well most carefully to consider their position and to absolutely refuse to confer the benefits of their services on any but the really poor. The spectacle of a

struggling surgeon or physician conferring his services gratuitously upon the wife or near relative of a well-to-do tradesman would be ludicrous if it were not also sad and terribly incongruous. A firm combination should be entered into between general practitioners and consultants to resist by all means in their power the growing abuse of gratuitous medical work.

Managers of hospitals and professors and consultants should weigh well these words, and, weighing, alter their habits for the better. For a firm combination may else be entered into by the profession against, not only hospitals, but also against professors and consultants who, puffed up with the dignity of title, so far forget their duty to their colleagues as to continue to cater to the desires of lay managers to the injury of the profession.

TREATMENT OF RETRODEVIAION OF THE UTERUS BY VAGINAL SECTION.—Our German confrères have shown unusual activity of late in devising and perfecting means of curing retrodeviation and prolapse of the uterus by operation through the vagina. Beginning with Mackenrodt's operation of vaginal fixation, the results first reported by its advocates were so satisfactory that nothing further seemed to be desired. More recently, however, a constantly increasing number of cases of dystocia due to the drawing of the cervix upward and backward have rendered the operation of doubtful value in women capable of bearing children. Perhaps the more recent modification by which the uterus is attached to the peritoneum only may overcome this difficulty, but not enough time has as yet elapsed since its introduction to allow us to judge of its value. The operation, however, has been of use in showing the feasibility of operating through the vagina upon certain pathological conditions of the uterus which were previously reached through the abdomen.

The round ligaments were the next point of attack. They were shortened on the principle of the Alexander operation with the advantage that the uterus could be straightened up under the eye, the adnexa inspected and treated, and adhesions broken up; at the same time danger from inguinal hernia was avoided. The principal objection to this procedure has been that the position of the fundus alone was corrected while the chief cause of the trouble—the relaxed condition of the pelvic diaphragm—was left untreated. After the operation the uterus was liable to drag on its newly made support and the cervix descend in the axis of the vagina instead of remaining in its normal position.

The most recent method of dealing with these

difficulties is an operation devised by WERTHEIM and MANDEL (*Centralblatt für Gynäkologie*, No. 18, 1896). It consists in opening through the anterior fornix of the vagina, turning the uterus out, and taking up the slack in the utero-sacral ligaments, then replacing the uterus and shortening the round ligaments. The operation is claimed to be easy to perform in cases in which it is indicated, namely, those with much relaxation of the pelvic floor. It has been done three times with most satisfactory results. Dystocia, it is said, is not to be feared, and the uterus assumes a perfectly normal position.

The so-called utero-sacral ligaments have long been known as potent factors in the causation of uterine displacement, but operations upon them have never become extensively practiced, owing to the difficulty of reaching them through an abdominal wound.

NEUROLOGY AND PSYCHIATRY

Department Editor
PEARCE BAILEY, M.D.

Collaborators

ALBERT WARREN FERRIS, M.D., LEWIS A. CONNER, M.D.
THOMAS PECK PROUT, M.D., L. PIERCE CLARK, M.D.

The Vaso-Motor Nerves of the Heart.—W. T. PORTER (*Bost. Med. and Surg. Jour.*, January 9, 1896)

The stimulation of the cardiac end of the vagus nerve causes a primary constriction of the coronary arteries of the heart.

An etherized cat is bled from the left carotid artery. The innominate and the left subclavian arteries, the inferior vena cava and the azygos vein are ligated; and cannulas are placed in the superior vena cava and the thoracic aorta. The heart is washed out with warm, defibrinated, oxygenated sheep's blood. The animal is now put in a warm chamber, capacity 2.1 cubic meters, and the aortic cannula connected with a Mariotte's bottle, containing sheep's blood and standing 140 ctm. above the heart. The temperature of the warm chamber and the blood reservoir is about that of the body. When the cock in the tube connecting the Mariotte's bottle with the aorta is opened, the contents of the latter are placed at a pressure of 140 ctm. (blood), and the semilunar valves are thereby instantly closed. The blood can then leave the aorta only through the coronary arteries. It passes through these vessels into the right auricle and escapes through the cannula in the superior vena cava. A glass tube attached to this cannula and placed with its free end slightly lower than the heart acts as a weak siphon and assists the outflow from the auricle.

If the coronary arteries are now constricted, less blood will flow through them into the right auricle, and the quantity escaping through the outflow tube will therefore be diminished.

A cat was prepared by this method and the coronary arteries fed with sheep's blood. The blood escaped in drops from the cannula in the right auricle.

The cardiac end of the left vagus, 2 ctm. above the first rib, was stimulated for 15 seconds with an induction coil. The outflow in the 15 seconds preceding stimulation was 13 drops; during stimulation it fell to 8 drops; 30 seconds after stimulation the original rate was restored. Repetitions of the experiment at intervals during more than half an hour gave the same results. For example, an outflow of 14, 11, 13 drops per 15 seconds was reduced to respectively 5, 4, and 4 drops.

In one animal, the primary fall in the outflow was followed during continued stimulation of the vagus by an outflow greater than that before stimulation was begun. After stimulation, the outflow returned to that noted before stimulation. This would indicate, perhaps, the widening of the coronary arteries by dilator fibers. It is believed that experiments now making will determine this question and will give additional information regarding the origin, course, and properties of the vaso-constrictor fibers for the heart now shown to be present in the vagus nerve.

Lesions of the Cortical Tissues Induced by Acute Experimental Alcoholic Poisoning.—BERKLEY (*Jour. of Nerv. and Ment. Dis.*, May, 1896)

The author bases his report upon the study of three rabbits' brains which were poisoned by a slowly increased dose of alcohol, thus establishing at the time of poisoning a certain degree of tolerance, such as might be present in a man on a continued spree. The loss of weight in these animals was enormous; the first lost approximately three-fifths of its weight, the second seven-twelfths, the third five-ninths, although the animals in other respects, aside from the poisoning, were well taken care of. B. found that the resistance of the animals was not proportionate to their weight. Death occurred in all three cases in about three weeks. On autopsy, the principal gross lesion was a fatty condition of the heart which is usually present in all animals poisoned in this manner. Microscopical examination of the nervous elements by Nissl stain showed the cellular protoplasm to be finely granular and devoid of stichochromic structure. The nuclear dust had not aggregated into clumps and become adherent to the nucleolus, as was found in more chronic stages.

By the silver phospho-molybdate method more careful examinations of the dendrites were made. The dendrons showed swelling of the branches and atrophy. There was a marked diminution of the lateral buds, and the rounded knobs of the gemmulæ at their terminations were lost. Atrophy and complete stripping off of the gemmulæ from the stems was as often seen as the tumefaction of the dendrites. No change in axons, collaterals, or cellular bodies was noticed. The lesions of the blood-vessels and their contents were the most noticeable of all the tissue changes. The swollen blood-vessels, obliterating the Virchow-Robin lymph-space, crowding on the surrounding nervous elements, and this in turn closing the lymph-spaces of His, were all plainly noticeable in many sections. The great abundance of the polynuclear leucocytes in and around the blood-vessels showed an excessive production of these elements. Many thrombi in lymph-channels were found and lymph-exudates, almost completely closing many of the small vessels.

In conclusion, the author states that he thinks that poisoning by alcohol, continued over a moderate time, will produce as constant lesions as other more virulent soluble poisons. "One point should be

borne in mind between this study and a similar one upon the human alcoholic brain—that man has through long generations been accustomed to the use, or abuse, of alcohol, in some form, and has established a certain degree of tolerance to the drug, and therefore the poisonous effects will be less pronounced than in animals that have established no hereditary tolerance.”

SURGERY

**OPHTHALMOLOGY, OTOTOLOGY, RHINOLOGY,
LARYNGOLOGY, DERMATOLOGY, ORTHO-
PEDIC AND GENITO-URINARY SURGERY**

Department Editor
SAMUEL LLOYD, M.D.

GENERAL

In charge of **B. FARQUHAR CURTIS, M.D., WILLIAM B. COLEY, M.D., E. M. FOOTE, M.D.**

Fatal Cachexia Thyreopriva after Iodine.—(*Correspondenzbl. f. Schweiz. Aerzte*, 1896, No. 3)

A brief history is given of a case of goiter ending in death from the administration of iodide of potassium. The goiter was a large one, and the attending physician ordered the application of a salve containing iodine, and the internal administration of iodide of potassium 4 gme. pro die. The effect of the medicine was very striking, and in three weeks the tumor had grown much smaller; but from the beginning of the treatment, in addition to symptoms of iodism, other symptoms, such as vomiting, trembling, and tachycardia, were present. The iodine was given up, but these symptoms of cachexia thyreopriva continued, and the patient died in about one month after the beginning of the treatment, with marked circulatory and respiratory disturbances, similar to those seen in exophthalmic goiter.

Oxygen after Ether.—*PARVIN (Med. and Surg. Reporter*, Apr. 4, 1896)

The inhalation of oxygen after ether has been found effectually to prevent nausea, vomiting, and headache, even after operations where the anesthetic was administered for an hour or two. The writer first saw oxygen successfully employed in this fashion by LANDAU in Berlin, but has since used it with equal satisfaction in his own operations.

Traumatic Cephalhydrocele.—*F. DE QUERVAIN. (Archiv f. klin. Chir.*, LI, No. 3, 459)

The author reports the histories of three cases, and after a review of the literature he gives a brief résumé.

Traumatic cephalhydrocele may follow a partially healed or ununited fracture of the skull with an intact integument. Failure of union may be caused by undue separation of the margins of the bone, interposition of soft parts and by a disease of the osseous system. It may follow injury of the cranial contents. This may be laceration of the membranes, compression of the cortex or the lateral ventricle, and opening of the latter directly or subsequently after softening.

In healthy children the bone defect will remain stationary, or it will be increased by the pressure of the growing brain. This defect is eventually closed by a more or less resistant membrane. In the presence of rickets a simple fissure may become an extensive defect in a very short time without any further mechanical process.

In the cases where spontaneous cure takes place we will find a diminished production of fluid, retraction and increased strength of the galea, and diminution as well as obliteration of the communications with the inside of the skull. In recent cases the depressed fragments must be elevated and united, with the usual care to prevent pressure on the brain. In cases with a tendency to spontaneous cure a protecting plate must be applied. In cases which remain stationary or progress slowly, complete and permanent replacement by a compression pad is in order, so as to favor retraction of the protrusion. Injection of iodine may be used with the same object and also to diminish the production of cerebro-spinal fluid. In cases which are combined with epilepsy or where rickets is present and where the deficiency in the bone is large, the ventricle must be drained. König's method of plastic operation is indicated in the absence of epilepsy and rickets. Spontaneous cure of cephalhydrocele is probable; that of the bone defect improbable. There is danger of epilepsy and metastatic meningitis. Rickets makes the prognosis worse on account of the tendency to progression.

Osteomyelitis and Immunizing Experiments.—

CANON (Deutsche Zeitschrift f. Chir., XLII, No. 1)

From the results of a series of experiments the author draws the following conclusions:

1. The presence of streptococci in osteomyelitic processes is to be looked upon as dangerous.
2. Staphylococcus osteomyelitis is by far the most frequent.
3. Osteomyelitis is to be considered as a staphylococcus pyemia of the developing period of life.
4. It is possible to immunize animals against a staphylococcus infection by the aid of blood-serum from individuals just recovering from a staphylococcus disease.

Post-typhoid Purulent Myositis.—*JAHRA DNICKY (Centrblt. f. Chir.*, 1896, No. 14, p. 337; *Wien. klin. Rundschau*, 1895, No. 43)

According to the etiology there are three forms of post-typhoid suppuration:

1. Mixed infection from typhoid bacilli and pyogenic cocci;
2. Secondary pyogenic infection of the organism affected by typhoid;
3. Distinctly typhoid abscesses.

A case occurred in MAYDL's clinic which belongs to this last form. In the last week of a typhoid relapse, a flat, hard swelling appeared which gradually increased to the size of the palm of the hand. After fluctuation was made out the mass was incised and pus evacuated, which contained pure cultures of typhoid bacilli. Numerous typhoid bacilli were also found in the infected muscle-fibers.

The Treatment of Traumatic Injuries of the Liver.—*SCHLATTER (Beitr. z. klin. Chir.*, XV, No. 2; *Centrblt. f. Chir.*, 1896, No. 15)

After reporting five of his own cases, with two recoveries, the author draws the following conclusions:

In the majority of cases, hemorrhage is the immediate cause of death. The dangers of evacuation of bile into the peritoneal cavity are not as great as those of hemorrhage. Penetrating stabs and gunshot wounds necessitate an early laparotomy to check hemorrhage. Disinfection and diagnostic

reasons are indications for an exploratory incision. The earlier the operation the more favorable the prognosis. Suture of the liver-wound is the most efficient hemostatic. For positive hemostasis parenchymatous sutures are necessary also.

The suture material should be thick, to prevent cutting of the tissues by sutures; catgut is the most satisfactory material for sutures. In some cases tampons of iodoform gauze or the thermocautery may have to be used. Laparotomy in the linea alba or an incision along the lower border of the chest wall gives the best access to the liver. At times both may have to be used and even resection of the lower chest wall according to LANNELONGUE may be necessary.

The Importance of Roentgen's Discovery in the Diagnosis of Diseases of Bone.—KÖNIG (*Centralblatt f. Chir.*, 1896, No. 14, p. 343; *Deutsche med. Woch.*, 1896, No. 6)

K. is of the opinion that this discovery might be of value in certain diseases of bones; he points especially to circumscribed tuberculosis of the articular ends and new growth. A Röntgen photograph was taken of an amputated limb; the amputation was done for a sarcoma of the tibia. On examining the picture it was possible to make out the limits of destruction in the tibia and the substitution of a peculiar tumor, as well as the growth of this tumor beyond the limits of the bone. The character of the tumor was also made out. Corresponding to the specimen, a peculiar cloudiness was seen in the picture, as though several thick clouds were near each other. In addition a peculiar dark figure, the size of a mark piece, was present near the lateral epicondyle. Corresponding to this, an enchondroma was found in the spongy portion of the epiphysis.

ORTHOPEDIC

In charge of T. HALSTED MYERS, M.D.

Treatment of Congenital Dislocation of the Hip.—LORENZ (*Lancet*, No. 3780, p. 390)

LORENZ is quoted as having devised a new method of treatment which requires no cutting operation. He has employed it in 25 cases, all under 6 years of age. He first brings the head of the femur opposite the acetabulum by means of traction, then the reduction of the head into the acetabulum is effected by making a maximum of flexion and abduction. The leg being extended, the anterior wall of the acetabulum is stretched by means of hyper-extension of the leg, and direct dilatation of it is obtained by pressing the head of the femur into the cavity.

[This method seems almost exactly like that of Prof. PACI, with the exception that the latter makes no attempt to stretch the acetabulum by hyper-extension, a proceeding which appears somewhat theoretical and perhaps impracticable.—ED.]

Uncommon Consequence of Severe Sprain of the Foot.—MOULLIN (*Lancet*, No. 3779, p. 296)

The patient, a boy, had caught his foot in a revolving wheel. He was placed in bed without treatment for some weeks. Since the accident the lower end of the tibia had ceased growing, while the growth of the fibula had been normal. The projection downward of the external malleolus had produced a spurious club-foot. The internal malleolus was exceedingly small, but the lower end of the shaft of the tibia had also failed to grow. The boy

could not walk more than half a mile on account of severe pain in the shin. MOULLIN proposed to resect a portion of the fibula, dividing the tibia at the same time also, if necessary, and thus bring the foot into its normal position.

Acute Primary Osteomyelitis of the Vertebrae.—

MAKINS and ABBOTT (*Ann. Surg.*, XXIII, No. 5, p. 510)

The authors report on 21 cases; 8 of them are from their own experience and are given in detail. The illness commences suddenly: sometimes spontaneously, sometimes after a slight injury. The patient suffers with malaise, local indefinite pain, fever often accompanied by an initial rigor, and when he comes under observation presents the aspect of extreme illness. At an early stage a tendency to assume the supine position is to be noted, also tenderness and rigidity of the affected part of the spine. When the disease affects the neural arch or any of its processes, an edematous swelling and tenderness over the back, both being widespread, appear after three or four days. Often no definite spot can be recognized as the focus of the disease. The temperature will range between 100° F. and 104° F. with slight morning remissions. The pulse and respiration are rapid. Sordes may collect upon the teeth, and diarrhea may be a troublesome complication. A pustular eruption may also be present. The exclusion of enteric fever may therefore be difficult, especially as the spleen is also enlarged in these cases.

Special symptoms: In the cervical region, the rigidity of the head and headache are marked. In the dorsal region an abscess may cause dysphagia from esophageal pressure, or pulmonary or pleural symptoms. In the lumbar region distention of the abdomen is a frequent symptom, and seems to be dependent upon direct implication of the spinal nerve-roots and the sympathetic ganglia and their connections.

Abscess: This occurs in every case. In the six examined bacteriologically, pure cultures of staphylococcus pyogenes aureus were obtained. Where the body of the vertebrae is involved, the abscess is anterior; that is, post-pharyngeal, mediastinal, psoas, or pelvic; while where the neural arch was affected it was posterior. When the transverse process is affected the abscess travels in both directions, and a psoas abscess may communicate directly with one in the lumbar region through the interval between the transverse processes. In lumbo-sacral disease the sacro-iliac joint sometimes becomes involved. Multiple foci are generally found in disease of the vertebral body, but where the neural arch is affected a comparatively small and well-defined area only is common.

In this series of cases boys were more often attacked than girls. About 40 per cent. of the cases occurred between the ages of ten and fifteen years, and 13 of the 21 cases involved the spine between the twelfth dorsal and the first sacral vertebrae. Secondary deposits often occur early in other bones, or as a pustular eruption, and help to clear up the diagnosis.

Angular curvature was noted in but two of this series of cases, and was not permanent then.

The symptoms of involvement of the spinal cord and meninges sometimes are at first unnoticed, in consequence of the serious general condition of the patient, but sometimes are the first to attract attention. They include shooting pains in the limbs, hyperesthesia, anesthesia over wide areas, twitching tremors, convulsions, and complete paralysis

of limbs, trunk, rectum, and bladder; also pupillary symptoms when the cervico-dorsal region is attacked.

TREATMENT.—This does not differ from that of osteomyelitis elsewhere, except that here rest of the spine is imperatively demanded. Early evacuation of the abscess and removal of necrosed bone are indicated, but determining its exact location is very difficult at first on account of the great amount of edema and the small size of the abscess. The great depth of the abscess, if located anteriorly, make it inaccessible sometimes. Seventy-one per cent. of these cases died, 14 per cent. were relieved, and 14 per cent. cured. The average duration of the fatal cases was 25 days.

DERMATOLOGY AND SYPHILIS

In charge of HENRY W. STELWAGON, M.D.

Assisted by EMANUEL J. STOUT, M.D., and CHARLES N. DAVIS, M.D.

Three New Cases of Congenital Elephantiasis.—MONCORVO (*Ann. de Derm. et Syph.*, VI, p. 965)

The author narrates the history and results of examination of 3 cases of congenital elephantiasis and summarizes his opinions as follows:

1. That the condition of elephantiasis may occur before birth.
2. That the morbid process may, at times, attain to the development of fibrous tissue.
3. That in one-third of the cases of congenital elephantiasis recorded so far, the morbid process remains circumscribed in a part of the body, notably to the lower extremities, as is the rule in the acquired form.
4. That in the other two-thirds of the cases the disease has affected the soft and cystic form, isolated or associated with sclerotic formations even to veritable subcutaneous fibromata (VIRCHOW, MONCORVO).
5. That in some cases of the second group one finds the co-existence of vascular nævi, pilous or not, situated in the regions attacked by the elephantiasis formation.

The Genesis of Hereditary Syphilis.—Prof. Dr. CASPARY (*Archiv für Dermatologie und Syphilis*, XXXIV, 1896)

KASSOWITZ several years ago expressed the view that the placenta possessed impermeability in both directions; that is, the poison from a child of a syphilitic father could not permeate to the healthy mother, or a woman infected during pregnancy could not carry the poison to a healthy fetus. KASSOWITZ later on admitted that in rare cases this latter accident did occur. Infection of the healthy mother by the child of a diseased father he even admitted must be considered the rule; in this, however, the mother was not affected with active syphilis, but in some manner was rendered immune. He afterward returned to his first view of the impermeability of the placenta as a filter in all instances. CASPARY, after describing a number of cases, arrives at the following conclusions: The placenta can undoubtedly prove impermeable to syphilitic infection; it is probable that this is often the case, and it can readily be surmised that in most instances the placenta possesses this capacity.

He refers to another very interesting question relating to hereditary syphilis, which has led to much discussion. According to the so-called law of PROFETA, a child, conceived during health and born healthy, although the mother has become infected during pregnancy, is immune to syphilitic poison.

Are such children, without exception, immune to syphilitic infection? And how long does this hereditary protection last? MIREUR reports the case of a man who married 11 months after becoming infected; the wife and also the child remained healthy; at two years of age the child became infected from the father through a secondary erosion on his mouth. NEUMANN reports the case of a woman, healthy at time of conception, who became infected by her husband at the end of the seventh month of pregnancy. The child, which was born healthy and well developed, contracted a primary lesion on the umbilicus from its mother at five months of age, with following maculo-papular syphilide. CASPARY therefore is of the opinion that the so-called law of PROFETA is the rule, but that exceptions, although very rare, do occur. The author states that the immunity possessed by mothers from contagion by hereditary syphilitic children through the medium of ulcers in the mouth and contagious products of all kinds, according to Colles's law, in rare cases is subject to exception.

A Method of Washing in Eczema.—PHILLIPS (*Brit. Med. Jour.*, January 18, 1896, p. 145)

In view of the extensively held modern opinion of the probable parasitic etiology of eczema, the necessity of cleanliness becomes an important factor in its treatment, while the long-known injurious influence of water on eczematous surfaces raises a difficulty in carrying this idea into effect. The use of olive-oil—which, as a substitute for water for cleansing the skin and, indeed, in also removing the grime of manufacturing trades, is commonly known—is strongly advocated for this purpose. Recent experience with this method of cleansing has impressed the writer with its adaptability for constant use and of its value when persevered in. A case in point is cited in which the disease was obstinate and tending to spread under the use of water for washing. When cleansing with the oil was adopted the disorder rapidly subsided. The method consists in smearing the parts well with a pledget of cotton-wool saturated with olive-oil. The oil is then removed by gently rubbing the surface with a corner of a dry, soft towel covered with toilet oatmeal. In pustular eczema the writer found the occasional use of soap and water also necessary.

Cutaneous Tuberculosis of the Wrist Cured with Injections of Potassium Cantharidate.—M. GASTON BRANTHOMMI (*Bull. de la Soc. franc. de Derm. et de Syph.*, Jan., 1896, p. 40)

The author curetted a patch of cutaneous tuberculosis in a shoemaker, situated on the upper part of the right hand and lower part of the wrist, the size of a five-franc piece. Relapse occurred. He then employed Liebreicht's method of treating tuberculous laryngitis with cantharidate of potash. The injections consisted of the following fluid: Cantharidate of potassa, 0.001 gme. ($\frac{1}{4}$ grn.); cocaine hydrochlor., 0.10; aq. destill., 10. He made nine injections in a period of three weeks (1 c.c. at each injection; the last injection of 2 c.c.). The punctures were painful, one resulting in an abscess. The first two injections were followed by elevation of temperature (39.3° and 39°) and local reaction, indicated by marked exudation. The general symptoms did not occur after the third injection. Improvement followed and cicatrization of the patch complete in four weeks. Careful examination of the urine failed to reveal the presence of albumin at any time.

SOCIETY MEETINGS

AMERICAN NEUROLOGICAL ASSOCIATION

TWENTY-SECOND ANNUAL MEETING

Held at Philadelphia, Pa., on Wednesday, Thursday, and Friday, June 3, 4, and 5, 1896

Dr. F. X. DERCUM, of Philadelphia, President

[Special Report to the BULLETIN]

FIRST DAY

President's Address.—THE PRESIDENT delivered an address entitled "The Functions of the Neuron." He dwelt at great length upon the various views advanced by NANSEN and quoted several abstracts from this well-known author's work. Speaking of naked axis-cylinders, Dr. DERCUM stated that they were in all likelihood a physiological impossibility in the cerebrum, for were they numerous we can suppose nothing but a constant overflow of stimuli from one cell to another, and consequent inco-ordination, not only of thought, but also of action. This is the view advanced by NANSEN. The speaker stated that the question had arisen in his mind as to whether the neuron was not an absolutely fixed morphological element, and whether it did not possess a certain, though perhaps limited, power of movement. Continuing, he said, "realizing the practical value and the wide application of this idea, I have examined the literature to see whether a similar interpretation of nervous phenomena has occurred to others, and to gather such facts, if any could be brought forward in its support. I found that this thought had occurred independently to three observers, one in Germany and two in France." RAMON Y CAJAL, however, opposes the theory of the mobility of the neuron, and maintains, on the other hand, that the neuroglia cells possess a great deal of mobility. He points out, for instance, that the neuroglia cells of the cortex are at times stellate and at others much elongated. Their processes have numerous short, arborescent, and plumed collaterals. Two phases can be observed in them, first a state of contraction, in which the cell body becomes augmented while the processes become shortened and the secondary branches disappear, and secondly a state of relaxation, during which the processes of the neuroglia cells are again elongated. RAMON Y CAJAL further maintains that the processes of the neuroglia cells in reality represent an insulating or non-conducting material, and that during the period of relaxation they penetrate between the arborizations of the nerve-cells and their protoplasmic processes and render difficult or impossible the passage of nerve-currents. On the other hand, when the processes of neuroglia cells are retracted, the various nerve-cell processes which they formerly separated from each other are now permitted to come into contact. To me it seems as though RAMON Y CAJAL admits the very thing against which he contends.

Turning our attention for the moment to the subject of hysteria, we will see what a flood of light may be cast upon this hitherto so obscure and mysterious subject. Take the simple example of an hysterical paralysis and see how easily it may be explained. The neurons of a certain area of the cortex, for instance, retract the terminal branches of the neuraxon to such an extent that the latter are no longer in contact or sufficiently near to the neurons in the spinal cord which supply the muscles of the paralyzed

parts. When power is suddenly re-established in hysterically palsied limbs, it simply means that the terminal branches of the cortical neuraxon, previously contracted, are again extended so as to re-establish the proper relations with the spinal neurons. It would be interesting to follow out the ideas here brought forward in their application to the various phenomena presented by hysteria.

Turning to hypnotism, we can see what a ready explanation it affords for the phenomena presented; and leaving this field entirely, we can see what an enormous value this interpretation of cortical action is for normal mental phenomena, taking for example the familiar instance of sleep. Numerous other ideas also suggest themselves in relation to the view here advanced, but time will not permit of my further discussing it.

Acute Non-suppurative Hemorrhagic Encephalitis.—Dr. J. J. PUTNAM, of Boston, read a paper with this title. The reader first sketched the literature of the disease, which has been mainly contributed by the German writers, the latest of whom is OPPENHEIM, of Berlin. The principal symptom groups are: 1, that described by WERNICKE, as due to hemorrhagic softening mainly confined to the neighborhood of the third ventricle; 2, that described by STRÜMPPELL and others as attending more diffuse lesions of the hemispheres; 3, that it is possible that the hemiplegia of children may be due to a similar lesion involving the cortex, as STRÜMPPELL formerly suggested, and certain acute spinal lesions may belong in a similar category. OPPENHEIM had reported a number of cases showing that, however grave the symptoms of this disease may be, the outcome may be favorable. The reader's case was that of a young boy who was attacked suddenly, two weeks after having been ill with the mumps, with paralysis of motion of both eyes and lids, deafness, coma, impairment of swallowing, right hemiparesis, and double optic neuritis. At the end of three months, however, he had recovered, except for slight double vision and slight impairment of hearing and eyesight, and except that ever since the illness he had been subject to epileptiform attacks of short duration. These attacks are gradually becoming less frequent. Reference was also made to another case reported by the reader in 1892, where, besides other serious cerebral symptoms, including double optic neuritis, temporary loss of hearing had also occurred. The cases reported by OPPENHEIM were given in outline and the interesting fact noted that his patients, like the one here referred to, were mainly children. An analysis of these reported cases was also presented.

Dr. L. C. GRAY, of New York, asked if any of these cases had retraction of the neck.

Dr. PUTNAM answered that he was not certain as to its presence in his own cases, but it was present in the other reported cases.

Dr. GRAY thought that the best macroscopical description of hemorrhagic encephalitis had been given by ELAM some years ago. All cases seen by him (GRAY) had proved fatal. In many instances the diagnosis was attended with extreme difficulty. He had generally been willing to diagnose these cases as meningitis.

Dr. JOSEPH COLLINS, of New York, had observed a case of hemorrhagic encephalitis with autopsy which corresponded with the description given by OPPENHEIM. He read the report of the autopsy, which showed old leptomeningitis, hemorrhagic encephalitis, and a pachymeningitis hemorrhagica. There was no case on record in which these three conditions had been found associated.

Dr. B. SACHS, of New York, said that the recognition of this form of cerebral disease showed a distinct advance in neurology. He had observed four cases. Two recovered and two died. In one case there was some doubt as to whether it was meningitis or not, as there was slight retraction of the neck, but no positive coma. He looked upon it as a milder disease than basilar meningitis. In one of the patients who recovered, the cerebral symptoms appeared simultaneously with the fever. The former lasted four days, leaving the patient with slight ptosis and paresis of the external rectus.

Dr. GRAY asked if fatal cases have shown more violent symptoms than those that recovered.

Dr. PUTNAM replied that some of the more violent cases recovered. In general the rapid development of severe coma is considered an unfavorable sign. It is frequently quite difficult to distinguish this condition from meningitis. He believed that the severity of the symptoms depends on the amount of poison absorbed into the circulation. We do not yet know the exact significance of retraction of the neck, which is a very unreliable diagnostic sign. In one of his own cases of influenza with symptoms of encephalitis, occurring in an elderly person, the brain was found only edematous. Sometimes changes are unrecognizable with the naked eye.

Cerebral Complications of Raynaud's Disease.

—This was the title of a paper by Dr. WM. OSLER, of Baltimore. After referring to the frequency with which Raynaud's disease is met with in forms of insanity, he said that in a few cases cerebral manifestations due apparently to vascular changes, similar to those which develop in the peripheral parts, had been described. In the case of a man in his wards, already reported in 1891 by Dr. H. M. THOMAS, in which epileptic attacks occurred in the winter months only, in connection with local asphyxia and superficial necrosis of the ears, the patient had also hemoglobinuria. In another case, a woman aged 52, during a period of six years local syncope and asphyxia occurred at intervals in the fingers and hand of the right side, sometimes with aphasia, and on several occasions with transient paralysis of the right arm and leg. In the final attack the patient died with gangrene of the right hand and arm. The case of WEISS is believed to be the only other instance in which aphasia complicated the disease. In a third patient "falling attacks" of an indefinite character occurred in a young girl, with local asphyxia of the legs between the knee and ankles.

Dr. RIGGS asked Dr. OSLER how often had he seen death follow this disease.

Dr. OSLER answered that it was rarely fatal. This was the second fatal case with which he was familiar. The literature, however, indicates a number of fatal cases. He considered the complications as having no direct relation with the disease. The associated conditions were rarely serious.

The Development of Cretinism at Various Ages.—This was a series of photographs presented by Dr. PUTNAM, showing the appearance of a patient at various periods ranging from infancy to puberty.

Tumor of Thalamus.—Dr. WALTER CHANNING, of Boston, read a paper with this title. The patient was an unmarried female of good heredity, and by occupation a school-teacher. She was of an active, nervous temperament, and the subject of hay fever and asthma until the spring of 1895, when she was under the care of a so-called "hay-fever specialist," and escaped the usual attack. Before admission to the hospital, November 29, 1895, she had been for some weeks mildly exhilarated and extravagant in

her ideas, but not enough so to interfere with her work until the 22d. The only physical symptoms she had complained of were headache and insomnia. Her disease was diagnosed by an alienist of experience as mild acute mania when she came to the hospital. Since her death her friends have stated that she had weakness of the left arm before leaving them, but nothing was said of this when she entered. She was mildly exhilarated with expansive delusions and hallucinations of taste and smell. She was unable to stand because of weakness in the left leg, and her left arm was weaker than the right, there being no power to move it above the elbow. Headache, not severe or localized, existed. There was little nausea. The pupils were equal in size and reacted to light. The eyes did not follow the finger. There was no ophthalmoscopic examination. The weakness in the left side was not so marked at the beginning as to attract special attention. It was later that its significance became apparent. Patella reflex slightly exaggerated and alike on both sides; plantar reflex moderate; urine color normal, reaction acid, specific gravity 1022, urea normal, uric acid in excess, blood count—reds 4,804,000, whites 12,400. The mild maniacal excitement continued for the first week after admission. The patient was very restless in the bed, moving her head from side to side and throwing her right arm over her head. She also often folded her arms rigidly across the chest, and clenched the fingers. After the first week she slowly sank into a stupor from which it was difficult to rouse her. The physical symptoms of central disturbance became rapidly more marked. There was entire loss of motion in the left arm, left leg, and, later, right leg, and extreme extension of both legs. The jaw became relaxed, interfering with respiration. The tongue fell back in the mouth. Breathing became jerky and irregular toward the end, and finally the relaxed jaw could not be replaced and death ensued. The autopsy was made by Dr. E. WYLLIS TAYLOR, of Boston, who found a boggy, cyst-like looking mass extending back an inch behind the posterior border of the optic thalamus, and forward to the junction of the caudate nucleus with the thalamus, the mass apparently involving the latter in its entire extent. Microscopical examination proved the tumor to be a vacuolar glioma. The mental symptoms in this case seem to have been quite unlike those of the usual cases of brain tumor recorded, in which are found depression, dullness, irritability, stupor, and even pronounced dementia. Several interesting questions arise, as for instance: Which symptoms probably presented themselves first, the mental or physical? Why should there be so much mental disturbance in such a case? Was the mental trouble an accident, and independent of the tumor? If not, how can it be satisfactorily explained? What diagnostic value do mental symptoms possess in cases of brain tumor?

Dr. WHARTON SINKLER, of Philadelphia, thought that the appearance of mental symptoms in thalamus tumors was of much clinical interest. In his experience, somnolence and mental symptoms were of frequent occurrence.

Hemiplegia and Dementia.—Dr. GEORGE J. PRESTON, of Baltimore, in this connection, presented the specimen from a patient with hemiplegia and dementia, which showed a tumor occupying the right hemisphere and a condition of condensing osteitis of the skull.

Dr. CHAS. K. MILLS, of Philadelphia, said that tumors of the brain have not only been confused with acute mania, but also with general paresis. It

is sometimes very difficult to differentiate. It is not known that tumors limited to the thalamus produce any characteristic symptoms. They occasion mental symptoms on account of their destruction of associating cerebral fibers.

Dr. SACHS had seen a case of brain tumor in a child in which mental symptoms predominated. The autopsy revealed a large tumor in the right frontal lobe. He did not feel convinced that the mental symptoms in Dr. CHANNING's case were attributable to the growth in the thalamus. Why might not this patient have had the mental disease independent of the tumor?

Dr. THEODORE DILLER, of Pittsburg, mentioned a case of tumor of the cerebellum in which the earliest symptoms were mental. The unexpected often happens in cases of brain tumor.

Dr. CHANNING concluded that the coincidence of symptoms was quite remarkable in the case reported.

The Ectal Relations of the Right and Left Parietal and Paroccipital Fissures.—This was the title of a paper by Dr. BURT G. WILDER, of Ithaca. The parietal and paroccipital fissures may be either completely separated by an isthmus or apparently continuous. When so continuous ectally there may still be an ental and concealed vadam or shallow. Disregarding the vadam on the present occasion, the ectal relations of the two fissures may be designated as either continuity or separation. That continuity occurs more frequently on the left side has been noted by ECKER, CUNNINGHAM, and the writer. Hitherto, however, statistics have included unpaired hemispheres as well as mates from the same individuals. The following statement is based upon the cerebrums of 58 adults of both sexes and various nationalities and characters. The speaker has examined 48; the other 10 have been accurately recorded by BISCHOFF, DANA, JENSEN, and MILLS. So far as these 58 individuals are concerned, the most common combination, viz., left continuity and right separation, is decidedly the rule with the moral and educated, less frequent with the ignorant and unknown, the insane and negroes, and does not occur at all in the murderers. The only instance of the reverse combination (left separation and right continuity) is an insane Swiss woman. The only two known to be left-handed represented the more frequent combination of left continuity and right separation. These statistics suggest many special queries and problems, some of which were briefly indicated. But the speaker wished this to be regarded as a preliminary communication, and asked the co-operation of other members in the effort to obtain satisfactory results of larger numbers, particularly of brains of well-born, moral, and educated persons. For this purpose a blank form was outlined.

Does Antisyphilitic Treatment Prevent the Occurrence of the Diseases of the Nervous System Which are Considered Syphilitic in Origin?—Dr. JOSEPH COLLINS, of New York, read this paper, and pointed out that certain diseases of the nervous system occur sequentially to syphilis with such frequency that they are rightfully looked upon as syphilitic in their origin. These diseases are tabes, general paralysis, syphilitic spinal paralysis, and such exudative conditions as cerebral thrombosis. After briefly reporting the history and treatment in nearly one hundred cases observed in hospital, dispensary, and private practice, the writer concluded as follows:

1. Exudative and degenerative diseases, due to syphilis, are most liable to show themselves at the end of the third and beginning of the fourth decade of life.

2. Thorough and prolonged administration of antisyphilitic remedies during the activity of the virus does not seem to materially prolong this time-limit.

3. That active and prolonged antisyphilitic treatment does seem to prevent the development of such diseases as locomotor ataxia and general paresis. This is true of degenerative diseases, though treatment may, however, have some effect in preventing the exudative diseases of the nervous system, such as syphilis of the spinal cord, disease of the blood-vessels, etc.

4. Cases of tabes and general paresis in which syphilis is confessed, and in which treatment has been most desultory and incomplete, are not more liable to the early development or to the severe manifestations of either of these two diseases than those in which the treatment has been all it should be.

5. That the administration of antisyphilitic measures in the most approved way does not fulfill the requirements of cure, and that syphilis is often an incurable disease.

Dr. PUTNAM referred to a case that had received prolonged and thorough antisyphilitic treatment, yet symptoms of degenerative nervous disease appeared later in life.

Dr. GRAY said that the facts in Dr. COLLINS's paper were not detailed as to the symptoms of syphilis, nor as to the exact treatment. In many instances of suspected syphilis an absolutely positive diagnosis is at times almost impossible.

Dr. SACHS, on the whole, agreed, with the conclusions of the reader of the paper. In the vast majority of cases, however, the treatment of syphilis does not prevent the development of tabes or general paresis. A better way to have arranged statistics would have been to take all cases of syphilis and ascertain if they developed nervous disease later in life. The worst cases of syphilis of the nervous system occurred in those that have never received any treatment. He spoke of such a person who had developed pronounced general paresis one year after the initial infection. In late cases it is often difficult to prove the relationship between syphilis and the nerve lesion. We should be careful about adopting Dr. COLLINS's views.

Dr. P. C. KNAPP, of Boston, agreed with Dr. SACHS, and did not believe it wise to refuse antisyphilitic treatment where it seemed to be indicated. He asked Dr. COLLINS if his cases showed that the development of nervous disease bore any relation to the severity or character of the primary or secondary manifestations of syphilis. Where the cutaneous symptoms were pronounced there was usually less nervous disturbance.

Dr. OSLER said that his experience was diametrically opposed to the views of Dr. COLLINS. The majority of severe cases of nervous disease occurring in syphilitics were in those who had either been badly treated or not treated at all. Early, thorough, systematic, and prolonged treatment will prevent the development of degenerative disease of the nervous system in later life.

Dr. N. E. BRILL, of New York, asked how the reader could reconcile with his statistics the fact that antisyphilitic treatment frequently cures incipient tabes and parietic dementia.

Dr. DILLER had seen nervous disease develop in spite of early antisyphilitic treatment.

Dr. PRESTON expressed the opinion that the irregularity with which endarteritis occurred is often overlooked.

He was unable yet to establish the relationship

between antisyphilitic treatment and endarteritis. Nervous disease has been of a milder type in those who have received careful early treatment, and more marked in those who have not.

Dr. PATRICK said that the author's statistics did not prove that treatment was ineffectual, and that the nervous diseases might be due to other causes. Where vigorous treatment is carried out for a brief period and then discontinued, late syphilitic disease of the nervous system is more likely to develop.

THE PRESIDENT maintained that it was hardly fair to draw conclusions from two diseases such as tabes and general paresis, as the reader acknowledged that they were not always due to syphilis. The degenerative affections may occur in cases that have been thoroughly treated.

Dr. COLLINS in closing the discussion said that he wished it understood that he had no theories to advance, but had merely tabulated the results of these cases. Particular inquiry had been made, in the cases detailed, as to the kind of treatment, and in many instances satisfactory knowledge had been obtained. In cases which had been referred to by one of the speakers, in which the symptoms of tabes and general paresis disappeared under antisyphilitic treatment, he was not willing to concede that these were genuine cases of tabes or general paresis, but cases of pseudo-tabes and pseudo-paresis, in which the lesion was an exudative one and not a degenerative one, such as is characteristic of these two diseases, and it was his belief that in these cases antisyphilitic treatment was of benefit. He had purposely refrained from saying anything of gumata and had confined himself to the systematic syphilitic diseases of the nervous system.

Prognosis and Duration of Attacks of Mental Disease.—This was the title of a paper by Dr. HENRY R. STEDMAN, of Boston.

Dr. CHANNING called attention to the fact that a general misunderstanding occurs in the community as to the curability of insanity. It is much more curable than is supposed. General paresis should not be classified among the insanities. The character of the disease has changed in the last 50 years, and our views and classification have therefore changed.

Dr. GRAY said that to speak of insanity as an entity was as if one were to speak of all disease as an entity, and then go back to the old Carlyle tables of mortality for the prognosis of coryza, pneumonia, tuberculosis, typhoid fever, and cholera, while to refer to the old statistics of PLINY EARLE was like referring to the hospital results of thirty or forty years ago for guidance in the treatment of the present day. If we are to accept the statistics of results of the insane-asylums, we are justified in analyzing their record, and then we are startled to find that no new type of mental disease, no original pathological observation, no new departure in treatment, and not one textbook has ever come from an American asylum, despite the millions of dollars and thousands of patients they have had at their command.

Paraplegia from Hemorrhage into the Spinal Cord due to Pernicious Anemia; Autopsy.—Dr. C. E. RIGGS, of St. Paul, read the report of a case, and presented a series of spinal-cord sections.

The paper was discussed by Drs. PATRICK, OSLER, and PUTNAM.

SECOND DAY

The Dorsal Sac, the Aulla, and the Diencephalic Flexure.—A paper on this subject was read by Dr. BURT G. WILDER, of Ithaca. It was illustrated by specimens and photographs.

Progressive Muscular Atrophy of Sudden Onset.—This was the title of a paper by Dr. THEODORE DILLER, of Pittsburg. He related the details of a case which came under his observation three years ago, and stated that the sudden onset of palsy, followed by atrophy and the absence of sensory phenomena, led him to diagnose the case as one of poliomyelitis adultorum. The beginning of the patient's trouble was in an ophthalmoplegia. After an absence of two years the man again came under his care, when the atrophy and loss of power in the muscles had markedly increased. The biceps, triceps, scapular and ulnar groups, had become involved, and the finer movements of the fingers were lost, as was also the power of supination. At this time patient was unable to adjust or remove his clothing unaided. There was a marked decrease in the response both to galvanism and faradism in the paralyzed muscles. Dr. DILLER considered the case could be fairly regarded as one of progressive muscular atrophy, as the progressive feature was for two years the most important feature of the case. Ophthalmoplegia as a symptom of progressive muscular atrophy must be rare, for but scant references are made to it in literature. Strychnine had a very marked effect in staying the progress of the disease.

Rapidly Fatal Cerebritis, Resembling Cerebrospinal Meningitis.—This was a joint paper by Dr. JAMES HENDRIC LLOYD and Dr. JOSEPH SEILER, of Philadelphia.

The writers called attention to the fact that fulminating cases of the infectious diseases, such as smallpox, scarlatina, measles, typhoid fever, and spotted fever, occur in which the diagnosis is exceedingly obscure, and the disease is usually quickly fatal. These cases, as a rule, have their most marked symptoms in the nervous system. There is delirium, passing into coma, with depressed cardiac and respiratory centers, with high fever, and, in the cases of the exanthema, often a purpuric or hemorrhagic eruption not always characteristic. These cases demand, especially, two things: First, the determination of the exact effects upon the nervous system; and, second, the determination of the microbe or toxic agent at work in any given case. The writers could only attempt the former study, as the paper was not intended to deal with the bacteriology of the subject.

The patient was a man aged 24 years, who was taken suddenly with a chill, followed by fever and intense cephalalgia and radialis. The patient passed rapidly into a condition of delirium, merging into coma. Third-nerve paralysis supervened, and on the third day a copious purpuric eruption appeared. This eruption presented ecchymosis, and, on the hands, lesions like erythema nodosum. Blood and pus were found in the urine, and vomiting of blood occurred before death. The patient died on the sixth day. The autopsy revealed disseminated local lesions in the cerebrum, mid-brain, pons, and post-oblongata; some migrated leucocytes in the perivascular spaces, little involvement of the membrane, and a diffused nephritis. From extensive microscopic research, the writers were able to report a disseminated local cerebritis. The infection had invaded the brain by way of the connective-tissue structures, blood-vessels, etc., and the nerve-tissues proper were invaded secondarily. From the clinical standpoint the case probably comes under the head of "spotted fever."

Dr. OSLER said he should like to have heard more in regard to the condition of the kidneys in the case reported. The diagnosis of cerebritis and encephalitis can be readily made between cases of infectious

fever and the former. Unless the basal meninges are involved we cannot make a positive diagnosis of meningitis, as all these symptoms, such as retraction of the head and clonic contractions of muscles, may be present in pneumonia, and yet nothing is found at the autopsy.

Dr. PUTNAM agreed with the previous speaker that so-called meningeal symptoms may occur without meningitis.

The discussion was closed by Dr. LLOYD.

Neuropathic Dermatitis.—Dr. L. A. DUHRING, of Philadelphia, presented this patient, who had been under his observation for six years.

The Effects of the Fluid Extract of Anhalonium Lewinii (the Mescal Button).—This was the title of a paper by Dr. S. WEIR MITCHELL and read by Dr. WHARTON SINKLER, of Philadelphia.

It was a graphic description of the personal experience of Dr. MITCHELL as to the exhilarating effects and the production of various visual hallucinations, etc., after the ingestion of a certain quantity of the drug.

(To be continued)

ONTARIO MEDICAL ASSOCIATION

SIXTEENTH ANNUAL MEETING

Held at Windsor, Ont., June 3 and 4, 1896

Dr. F. LeM. GRASETT, Toronto, President

Dr. J. N. E. BROWN, Secretary

[Special Report to the BULLETIN]

(Continued from p. 864)

Surgical Section

WEDNESDAY—AFTERNOON SESSION

Report of Three Surgical Cases.—By Dr. T. K. HOLMES, of Chatham. I. MOVABLE KIDNEY AND NEPHRORRHAPHY.—Male patient, 44 years of age. For eight years suffered from symptoms of indigestion and frequent attacks of pain resembling gall-stone colic. Was greatly emaciated when he came to Dr. HOLMES, and complained of loss of sleep, and a sense of twisting of the intestines that greatly alarmed him and caused an uncontrollable fear of being left alone. Examination revealed an *enlarged right kidney*. It descended with each inspiration and could be pushed over beyond the median line. *Nephrorrhaphy* was performed by passing three sutures through the substance of the kidney, from which the capsule had been previously stripped so as to expose a raw surface of 2 by 3 inches. The sutures included muscles and fascia sufficient to hold firmly when tied. The sutures were cut short and buried by closing the wound with silk-worm-gut. No drainage. The wound healed promptly, and in a few months the patient regained his normal weight and health.

II. NEPHRECTOMY FOR CYSTIC KIDNEY.—The patient was a woman, aged 49 years. She attributed her ailment to a fall from her carriage received 18 months previously. In falling, the region over the left kidney struck on a stone, and she suffered from pain in that part continuously afterward. The kidney was freely movable and extended beyond the median line. Her breath was foul, digestion bad, and color yellow.

The organ which had undergone cystic degeneration was removed through an incision in the left semilunaris, the internal layer of the mesocolon was divided vertically, and the colon which lay in front of the tumor was pushed to the left during the process of enucleation. The cut ends of arteries

were touched with carbolic acid before being dropped back into the abdomen. No drainage was used. No shock followed the operation, and a good recovery was made. The kidney weighed 49 oz.

III. ABDOMINAL HYSTERECTOMY FOR UTERINE FIBROID.—Patient aged 30 years. There had been no unusual hemorrhage, but patient was much exhausted by the pain from pressure of the tumor. The operation was performed by Dr. H. A. KELLY's method of enucleation. The cervix was completely cut across, just above the vaginal vault, and the stump closed by a double row of catgut sutures. The layers of the broad ligament were united by continuous catgut sutures, and the peritoneum of the uterovesicæ was attached by the same kind of sutures to the peritoneum behind the sutures, thus shutting off completely the pelvic from the peritoneal cavity. No drainage was used. Eighty-four ounces of sterile normal salt-solution was transfused into the cellular tissue beneath the mammæ. After the operation, and as symptoms of shock were marked, an enema of salt-solution containing 2 oz. of whisky was given every two hours until shock passed off, which was in eight hours. The patient made a good recovery, and was discharged from the hospital in five weeks. The tumor weighed nearly five pounds. Dr. HOLMES claims that the operation is easily performed, saves time, and enables the surgeon to avoid injuring important organs, such as the ureters.

Dr. CARSTENS, of Detroit, said that when a movable kidney produced serious symptoms it should be operated upon. Operations did not always yield favorable results, and in case of movable kidney the surgeon should not promise the patient too much. As regards fibroids of the uterus, in his judgment they should always be removed, although in many cases hysterectomy was not necessary to removal. Some few may disappear at the menopause, but he had known many others to produce serious symptoms and death after that period. With regard to technique, the surgeon should elect the operation most suitable in each case. He thought that there were others that had done even more than Dr. KELLY, of Baltimore, in perfecting the technique of hysterectomy for fibroids.

Dr. MCGRAW, of Detroit, mentioned cases of movable kidney in which the ureter had been kinked, that were treated for gall-stones. He did not think all cases of fibroid tumors of the uterus required hysterectomy.

Dr. MCLEAN, of Detroit, thought that some fibroids should not be operated upon. He cited a case of double floating kidneys, with marked nervous and hysterical symptoms, in a woman who consulted him as to the advisability of marriage. He advised marriage, which advice the patient took, and a year after she returned to him with a fine baby, but no hysteria.

Dr. ECCLES, of London, said that in cases of movable kidney, with marked symptom, the patient should be given a chance of the probable benefits of an operation. In anchoring a kidney, the kidney substance should be penetrated. Cases of nephritic colic will occasionally be found to be due to a floating kidney with a twisted or kinked ureter.

Dr. METCALF, of Detroit, had often been impressed with the effects of a floating kidney upon nutrition, and the benefits in these cases of an operation upon the nutrition and general health. In a case he operated on a few months ago, the patient had been reduced to a skeleton; after the operation her digestion and assimilation improved remarkably and she became quite fleshy.

The Treatment of Abortion.—This paper was

read by Dr. GEO. T. McKEOUGH, of Chatham, and will appear shortly in this journal.

Discussion: Dr. LONGYEAR, of Detroit, agreed with the remarks in the first part of the paper, but thought the use of the tampon and curette was antiquated and barbarous. It was not necessary, with the forceps which he had invented, to dilate the cervix; no neighbors or assistants were required. The blades of his forceps were narrow and curved, could be easily introduced, a portion of the placenta snipped off and removed, then reintroduced and removed, and so on until the whole mass was removed.

Dr. HUMISTON, of Cleveland, preferred, in dilating the cervix, to use graduated steel bougies, instead of a Goodell's dilator, as less traumatism would be produced. He thought Dr. LONGYEAR would find great difficulty in clearing the uterus of an adherent placenta with his forceps. He recommended curetting and subsequently washing out the uterus with sterilized water.

Dr. SPENCE, of Toronto, advocated removal of the contents of the uterus as soon as possible if abortion became inevitable. He would prefer the curette to the forceps, but thought the fingers better than either.

Dr. HOLMES, of Chatham, after a large experience with the fingers and forceps, had discarded both for the curette.

Dr. MEEK, of London, preferred the curette to the fingers, but considered the tampon objectionable, as it was frequently a source of sepsis.

Dr. McKEOUGH, in closing the discussion, stated that he thought the advantages of the curette over the forceps were that the curette was more speedy, and one could be more certain that the uterus was clean after its use; it was less tedious and painful and not so liable to be complicated by hemorrhage as the use of the forceps. The tampon was serviceable when the patient was exhausted from profuse hemorrhage; and, if the tampon was sterile or thoroughly disinfected, no danger of sepsis should follow its use.

Medical Section

WEDNESDAY—AFTERNOON SESSION

The Preservation of the Perineum in Labor.—

Dr. C. B. OLIVER, of Merlin, Ont., read this paper, which was a strong plea for Olshausen's method of conducting the second stage of labor. The paper will shortly be published in this journal.

Dr. LONGYEAR, of Detroit, and Dr. SAMSON, of Windsor, concurred in the views expressed in the paper.

Dr. HUNTER, of Toronto, said that the mode of delivery described would not apply to all forms of presentation. His experience was that where there was a liability to ruptured perineum from forcible pains, the best means of controlling the head and preventing the accident was by means of the forceps.

Dr. OLIVER, in closing, claimed that at the stage where rupture was liable to occur the forceps should, in all cases where used, be removed rather than depended on to preserve the perineum.

Neurasthenia.—This was the subject of a paper read by Dr. E. E. HARVEY, of Norwich. It will appear in an early number of this journal. He discussed treatment under the heads of: 1. Mental treatment; 2. Rest cure; 3. Medicinal and electrical treatment.

Dr. MCPHEDRAN, of Toronto, congratulated the writer upon the tact and patience with which he evidently managed his cases. In the whole range of practice, probably no class of cases required such

perseverance and study of human nature as neurasthenics.

Diphtheria.—This paper was read by Dr. C. R. CHARTERIS, of Chatham. He defined diphtheria as a local specific disease due to the Klebs-Löffler bacillus of diphtheria. Bad drainage is the most frequent cause of the disease. He referred to a characteristic odor as almost pathognomonic of diphtheria. He bore strong testimony to the value of calomel fumigation in the local treatment of the infection. He had obtained gratifying results from the antitoxin treatment. He repeated the injection in twelve to twenty hours. He preferred the gluteal region for injection. If necessary, he repeated the injection as often as three or four times. Watchfulness of the kidneys was important while using the treatment.

Dr. HENROTIN, in discussing the paper, understood the writer to differentiate membranous laryngitis from diphtheritic laryngitis; if so, it was a distinction without a difference, as both were undoubtedly one and the same disease.

Dr. CHARTERIS said he referred to pseudomembranous croup, which admittedly differed in kind as well as degree from true diphtheritic croup.

Dr. BRAY, of Chatham, had used antitoxin in ten cases of undoubted diphtheria, and recovery followed in all but one case.

Dr. MCPHEDRAN thought treatment by antitoxin was too long delayed in many. It should be commenced not later than forty-eight hours after the observance of the first symptoms. He had obtained unqualified satisfaction from its use. The last case he treated was that of his own child. The diagnosis was verified by bacteriological examination; the throat, which presented a virulent appearance, began to clear up in forty-eight hours. While the antitoxin failed in mixed infection, as streptococci with bacillus diphtheria, he believed it was a genuine antidote for simple true diphtheria.

Drs. HODGE and ARMOUR emphasized the necessity of watching the kidneys, as they very frequently became involved in the course of treatment.

Dr. HUNTER, of Toronto, believed calomel fumigation more reliable than antitoxin, and he considered supporting constitutional treatment of more importance than either.

Broncho-pneumonia in Children.—This paper, read by Dr. A. E. HARVEY, of Wyoming, will appear shortly in this journal.

Dr. HODGE did not agree with the writer in the statement that the etiology was often tubercular in children.

Dr. MCPHEDRAN thought the truth lay in the fact that many cases diagnosed broncho-pneumonia were tubercular from the beginning. He believed the writer was correct in saying that capillary bronchitis and broncho-pneumonia are one and the same thing. He did not, however, think, as stated by Dr. HARVEY, that the bronchial breathing indicative of consolidation, could be detected readily in a child, as it was impossible to distinguish between the bronchial breathing of consolidation and the normal puerile breathing of a young child.

At Wednesday evening's session: Dr. E. E. KING, of Toronto, gave a demonstration of the Röntgen photography, and discussed its application to medicine and surgery, with an exhibition of apparatus.

Dr. CRAWFORD SCADDING, of Toronto, gave, with remarks, an exhibition of Dr. FREDERICK HEWITT'S (1) apparatus for the administration of nitrous oxide gas and ether, (2) apparatus for the combined administration of nitrous oxide gas and oxygen.

(To be continued)

REVIEWS

New Truths in Ophthalmology as Developed.—

By G. C. SAVAGE, M.D., Professor of Ophthalmology in the Medical Department of the Vanderbilt University. Fifty-eight illustrations. Third edition. Published by the author, Nashville, Tenn., 1896.

The first edition was brought out in 1893, to be followed the same year by a special edition, incorporating an address before the graduating class of the Medical Department of the University of Nashville. This, the third edition, is increased in size, and this is due, as stated in the preface, "to the unfavorable criticisms on oblique astigmatism and the oblique muscles." Chapters II, III, and IV have mainly been inserted for this reason.

Part I is divided into 11 chapters; Part II is on "Contributions to Old Studies"; Part III describes "Operations" such as "Muscle-shortening," etc.

It will well repay every student of ophthalmology to carefully read this book, as the presentation of many of the facts are at variance to the usually accepted teachings. We are progressing, yet every "new truth" is not necessarily progress.

The modesty of the author is manifest in the following, taken from the "Preface to the Third Edition," where he says: "Principles are as old as the sun, and to these SOLOMON referred; the author is not responsible for the fact that some of the principles set forth in Part I were concealed through so many centuries, nor does he know why it fell to his lot to uncover them."

We wish the work a large circulation, and if they are "new truths" they will survive.

Bibliothek der Gesamten Medicinischen Wissenschaften, für Praktische Aerzte und Spezial-aerzte.—By Hofrath, Prof. Dr. A. DRASCHE, of Vienna, with the collaboration of Profs. ARNOLD, VIERORDT, WAGNER, STRICKER, SCHAUTA, SCHWENINGER, KOENIG, ESCHERICH, BOAS, etc.—Nos. 81 to 96. Complete in about 200 parts. Vienna and Leipzig: Karl Prochaska; 1896. Price, per part, M. 1 (35 cents).

As has been said in our former notices of this great treatise upon the collective medical sciences, an adequate, just, and comprehensive exposition of its merits and scope cannot be given within the narrow limits of a review. The masterly, exhaustive, yet terse manner in which the principal subjects are treated, the eminently modern spirit pervading the whole, and the multiplicity of topics discussed, permit of no more than a synopsis of a few of the chief and important features.

Nos. 81, 85, 89-90, and 95-96 constitute Parts 12 to 17 of the volume on medical chemistry. In Part 12 the description of the carbohydrates has been undertaken by Dr. AD. KREUTZ, of Duisberg, and occupies a space of 13 pages. These substances are discussed under the subdivisions "monosaccharides," such as grape and fruit sugar, etc.; "saccharine-like polysaccharides," such as cane and milk sugar, etc.; and "non-saccharine-like polysaccharides," such as starch, cellulose, dextrin, etc. Prof. C. ARNOLD, of Hanover, ably reviews the carbon compounds in a 10-page article, giving enough upon the subject to satisfy the most fastidious taste. Carbureted hydrogen, copper, manganese, metal-organic compounds, methane derivatives come in for due and ample consideration. In Part 13 microchemistry and milk receive the

fullest recognition. The article upon food-stuffs, by A. BRESTOWSKI, of Vienna, is a most exhaustive one, consuming no less than 62 pages of the text and extending over into Parts 14-15. The alcohol content of wines, the author says, may amount to 5-14 per cent. The greater the percentage of alcohol the less, as a rule, is the acid content; for the acid tartrate of potash is the more insoluble, the more alcohol is contained in the fluid. The sour taste of a wine cannot always be taken as an indication of its true acid content, since the other constituents of the wine, especially the alcohol, are also of influence. Of two wines of equal acid content, the one containing the most alcohol will have the least sour taste. Beer should contain not less than 1.8, or more than 5.5 per cent. by weight of alcohol and not less than 3.5 or more than 10 per cent. of fixed constituents. These numbers also contain sections upon the oxalic-acid series, naphthaline and derivatives, sodium, nuclein substances, and a most important article upon organic or histochemistry, to which 30 pages are devoted. In Parts 16-17 the principal articles are: phenol and derivatives (10 pages); phosphorus; photography (21 pages), partly illustrated; protein substances (21 pages); and 22 pages of an uncompleted article upon testing of medicinal substances.

Numbers 82, 83-84, 86, 87-88, form the concluding parts, 12-17, of Vol. II of internal medicine and pediatrics. Part 12 opens with an article upon atelectasis. Then follow articles upon gangrene, edema, cirrhosis, and hypostasis of the lungs. These are followed by an extensive article by BABES, of Bukarest, upon hydrophobia, in which the work of PASTEUR, HERTWIG, BRECHET, MAGENDIE, etc., is fully considered. It is stated that, by far, not all bites of rabid animals are followed by an outbreak of the disease. The wounds inflicted by rabid animals are the more dangerous: (1) the more numerous they are, (2) the deeper they penetrate the tissues, (3) the more rich the tissues are in nerves, (4) the nearer they are to the brain, (5) the younger the wounded individual is. In general, the mortality following dog-bite in France is estimated at 16 per cent., in Vienna at 12 per cent., in Würtemberg at 20 per cent., in France, according to official statistics, at 58 per cent. The average mortality may be assumed to be 15 to 20 per cent. When the individual cases are more closely considered, it will be found that the mortality in persons bitten in the face amounts to 87 per cent., in those bitten in the hands 66 per cent., in the upper extremities 29 per cent., in the lower extremities 19 per cent., in multiple injuries 81 per cent. Consumption of the flesh of rabid animals can never give rise to hydrophobia as long as the mucous membranes are intact. The prophylaxis with PASTEUR's virus is warmly supported. Treatment of cases in which the disease was fully developed has not given encouraging results. A long article upon carcinoma of the stomach occupies the closing pages of this part, and extends over into the succeeding parts, 13-14.

Reforming the Race.—Connecticut passed a law last year that makes it a felony for a man or woman who is an epileptic, imbecile, or feeble-minded to marry or live together as man and wife when the woman is under 45. The penalty is imprisonment for not less than three years, and any person who shall aid or assist, or in any manner countenance such a thing, will be fined not less than \$1000 or be imprisoned for not less than one year, or both. The same punishment follows if carnal intercourse takes place out of wedlock.

EDITORS' NOTES

The Medical Society of the County of Kings held its regular monthly meeting on Tuesday evening, June 16, 1896. The following papers were read: *Rhus-poisoning*, by Dr. J. H. HUNT; *Inhalations in Phthisis with a new form of Inhaler*, by Dr. A. J. DOWER; and *The Artificial Feeding of Infants*, by Dr. H. A. BUNKER. The papers were followed by lengthy and interesting discussions, and thereafter the meeting adjourned till next September.

New Medical Journal.—From June 1 the *Atlanta Clinic* will be issued on the 1st of each month, instead of the 15th as heretofore. With this change it will be increased to double its former size, and the subscription price will be raised to \$1 per annum. The subject-matter of its pages is ably edited and keeps abreast of the times. The BULLETIN extends its congratulations and hearty good wishes.

Iowa's Board of Health.—The last legislature of Iowa amended its law relating to the State Board of Health, the medical members of which constitute the medical examining board, so that hereafter no member of a faculty of a medical college shall be eligible to membership on the board. The amendment has created considerable feeling there.

Conference of Health Boards.—At the concluding session of the national conference of the State Boards of Health, in Chicago, the boards of health of Mexico and the quarantine boards of the United States were admitted. The conference will meet in Nashville, Tenn., next year. Officers elected for the coming year were: Dr. C. A. RUGGLES, Stockton, Cal., president; Dr. BENJ. LEE, Philadelphia, vice-president; Dr. C. O. PROBST, Columbus, O., secretary and treasurer.

No Sop to this Cerberus.—Dr. THOMAS H. MANLEY formally declined the appointment of consulting surgeon to the Harlem Hospital. He wrote, in returning his commission to the Commissioners of Charities, that, as his nomination had come through the University Medical College, he must peremptorily refuse to allow his name to be used by a medical school which, one year ago, did its best to destroy him, and united with others to humiliate and to degrade him, and insulted the great mass of practitioners in New York, who were not their henchmen and hirelings.

Kentucky State Board of Health.—At the annual meeting of the Kentucky State Board of Health, in Louisville, Ky., June 9, the election resulted in the choice of the old officers, as follows: Dr. J. N. MATHEWS, Louisville, Ky., president, and Dr. J. M. MCCORMACK, Bowling Green, Ky., secretary. Dr. EISENMAN, of Louisville, was chosen veterinary surgeon of the board; Dr. CASHIN was elected bacteriologist, and Dr. JNO. L. LONG sanitary inspector.

Dr. Byrne a LL.D.—St. Francis Xavier College of New York recently conferred upon Dr. JOHN BYRNE, of Brooklyn, the degree of doctor of laws. Dr. BYRNE was born in Ireland on October 13, 1825. He was matriculated by the Royal Belfast Seminary, pursued his medical education in the universities of Dublin, Edinburgh, and Glasgow, graduating in 1846. He came to the United States in 1848 and settled in Brooklyn. He was one of the incorporators of the Long Island College Hospital and has long been regarded as an able physician and

a profound thinker and writer. He has been the recipient of several honors both at home and abroad, and on January 23 last was the guest of honor at a dinner given by the Gynecological Society of Brooklyn, at which the presidents of the various medical societies in Brooklyn and New York were present.

Philadelphia's New Hospital.—The recent laying of the corner-stone of the new Medico-Chirurgical Hospital in Philadelphia was attended by many prominent professional men, and the ceremonies were of the elaborate and impressive order of Free Masonry. Governor Hastings was introduced and said: "The laying of the corner-stone leads me to say that whatever has for its object the amelioration of suffering and the uplifting of mankind is deserving of the consideration of our best citizens. It is a fact that those nations which kept pace with the progress of medical science during the centuries are to-day the most enlightened in the world. In proportion as the science of medicine has developed so have the people become enlightened."

A Criticism of the Department of Public Works.—The letter we publish below exemplifies the fact that "Reform" has not as yet begun to do that which was expected of it in the city of New York.

The Editor of the A. M.-S. BULLETIN:

There is a drinking-fountain in the little triangular park mentioned in the inclosed letter, and the sidewalk all about it is wet and nasty. The letter is a masterpiece of the opinion of a laboring man on reform. Hygiene and public health demand that the fountain be either abolished or repaired. Here is a copy of said letter, which I had the good fortune to secure:

"to the President [of the Park Board.]

"I should like to say honored sir, but I cant consiensly do it—for you dont attend to your work.

"The drinkin Fowntain in the Public Park befor the Hotel Empire has been a leakin for six weeks, and the Water is a runnin away faster than the Million Dollars yez got for to aid the workin man what wuzzent a working.

"the day of the Parade all wus ashamed of the Boolevar and the Parks is a disgrace to a educated and enlitened Public.

PATRICK F.—."

To Enforce Fealty and Loyalty.—The following has been sent to the Executive Committee of the County Medical Association:

"Moved, That all the members of the faculties of the three regular medical colleges of New York, viz., of the College of Physicians and Surgeons, the Bellevue Medical College, and the University Medical College, and fourth division of Bellevue Hospital, or those members of them who are under the jurisdiction of the County Medical Association, in having refused to notice the appeal of our Committee on Hospitals, not to act, in the matter of assisting in the displacement of twenty-eight or more practitioners about to be removed, without permitting them an opportunity to be heard in their own defense, in ignoring and disregarding courteous and respectful communications of our committee, in refusing to appear before them when regularly notified by the secretary, and, when one member of the faculty went into the public press to malign and misrepresent our committee, by charging that its work had degenerated into an attack on the medical corporation which he represents, have one and all, submitted our committee to humiliating and repeated indignities and endeavored thereby to frustrate its efforts in the investigation committed to their hands, have violated their obligations of loyalty and justice to their profession, and, in several vital particulars, some of the most salutary provisions of the code of ethics of the American Medical Association, it now becomes necessary and imperative to cite all the

aforesaid physicians, either singly or collectively, to appear at an early date before the Executive Committee of the County Medical Association, in order to allow them to show why they have not left themselves liable to discipline or expulsion by this association, whose rules and decrees all, irrespective of position or rank, must faithfully observe;

And that this investigation shall be conducted conjointly by the Executive Committee and the Committee on Hospitals, provided the latter shall concede such concert of action desirable or expedient.

College and Hospital.—The Parkin prize of \$500, offered for the best essay on some subject connected with medicine, by the College of Physicians in Edinburgh, was recently awarded to Dr. R. B. WILD, assistant lecturer on materia medica, Owens College. The subject of his essay was "Charcoal as a Therapeutic Agent."

A movement is on foot in New Orleans to establish a Woman's Medical College in connection with the Tulane University.

The Wisconsin Eclectic Medical College is under official investigation with a view to revocation of its charter. It is said that the college has issued its diploma conferring the degree of M.D. upon an examination consisting of about forty questions, and that it has no appliances, libraries, or teachers.

The Mountain-side Hospital at Montclair, N. J., recently received a legacy of \$10,000 from the estate of John W. Pinkham, who was consulting physician to the institution at the time of his death.

The city of Odessa, Russia, is to have a medical college, and hospital adjoining, that will cost 1,400,000 rubles.

Bishop NEAVEN, of Springfield, Mass., recently purchased a new hospital on Carew street in that city, and the same will be opened for the reception of patients by July 1.

Under the will of the late LEONARD FRIEDMAN, the Mt. Sinai Hospital received a bequest of \$2500; the Montefiore Home for chronic invalids, \$1500; and other asylums an aggregate of \$7000, in different sums.

The Medical Society of West Virginia, at its recent session in Wheeling, admitted twenty-two new members from various parts of the State. The number of papers read was large, and discussion full and interesting. Officers elected were as follows: Dr. N. D. BAKER, of Martinsburg, president; Dr. D. C. LOUCHERY, of Clarksburg; Dr. W. W. GOLDEN, of Elkins; Dr. L. D. RUPERT, of Nuttallsburg; Dr. H. B. STOUT, of Parkersburg, vice-presidents for four districts respectively. Dr. G. A. ASCHMANN, of Wheeling, secretary; Dr. J. W. JOHNSTON, of Davis, treasurer. The Board of Censors are: Drs. C. F. ULRICH and E. A. HILDRETH, of Wheeling; Dr. L. S. BROCK, of Morgantown; Drs. G. S. SCHOFIELD, V. T. CHURCHMAN, and W. W. THOMPSON, of Charleston; and W. H. SHARP, of Parkersburg. The society will hold its next meeting in Charleston.

American Water-works Association.—A large part of the proceedings of the annual convention of the American Water-works Association, recently held at Indianapolis, was devoted to the subject of the best methods of purifying municipal water supplies, and the remarks of the various chemists, managers, and engineers of American water-works gave an excellent summing-up of the present status of the filtration system in this country.

An interesting paper by ALLEN HAZEN, formerly

bacteriologist of the Lawrence Experiment Station, dealt with the filtration of public water supplies, and stated that most large public supplies in the United States are muddy and otherwise polluted, yet surprisingly few companies use filters. Other speakers were Dr. J. B. RIDER and Prof. A. R. LEEDS, of Stevens Institute.

Impure Water at New Orleans.—At a recent meeting of the Board of Health of New Orleans, Prof. METZ, chemist of the board, reported that his analysis of water submitted to him for that purpose proved it to be diluted sewage. It was evidently pumped into the mains of the American Sugar Refinery at a time when sewage was simultaneously discharged into the river.

The Antivivisection-law Agitation.—At the last meeting of the Kentucky State Medical Society the following resolution was introduced by Dr. HENRY E. TULEY, Louisville, and was unanimously passed:

"WHEREAS, Resolutions concerning vivisection were passed by the American Medical Association at Atlanta, therefore be it

"Resolved, That the resolutions mentioned and published in the *Journal of the American Medical Association* express the sentiments of the Kentucky State Medical Society, and that our secretary be instructed to send a copy of these resolutions to our Representatives and Senators from this State."

The Recent Serum Tragedy at Berlin.—Professor EHRLICH's official report on the serum used in the sad LANGERHANS case has been published by the Prussian Cultus-minister. EHRLICH comes to the conclusion that the serum was entirely normal in its constitution. He says: "In the LANGERHANS case No. 216 had been officially tested on December 16, 1895, and passed on for sale on December 18, the examination having demonstrated the required 100 immunizing unities per cubic centimeter, perfect sterility, and the prescribed admixture of carbolic acid. Immediately after the announcement of the death this serum was subjected to a careful re-examination. As the legal authorities had disposed of the remainder of the bottle used for the injection, samples of the same pass number that had remained at the station were taken, and also bottles of the same number from the stock of the Charité Dispensary, where Professor LANGERHANS's bottle had come from. The serum again showed the required 100 unities per cubic centimeter, and bacteriological examination proved it to be free from germs, so that there can be no question of any subsequent formation of poisonous bacterial products. By a number of experiments on animals the admixture of carbolic acid was shown to be no higher than permitted. Thus, on re-examination, too, the serum answered to the tests exacted. Nevertheless, it seemed important to ascertain whether, perhaps, toxic effects produced by this number had been noticed anywhere else. About 1300 portions of this serum had been brought on the market, and if it really contained toxic substances it seemed extraordinary that no one had drawn attention to the dangerous qualities of this particular number. Researches were made in the hospitals that had received No. 216 serum from the Hoechst works (serum depot of the Royal Charité Dispensary, Julius Hospital in Würzburg, General Hospital in Hamburg, Sick Club of the Royal Dockyards in Kiel, Municipal Hospital in Magdeburg, Krefeld Hospital); in none of these places had any special, much less any toxic, effect of the serum been ob-

served. According to the statement of the director of one of these hospitals, a child 18 months old had been given a dose of 16 c.c. without showing any alarming symptoms. This is at least 10 times the dose used for Professor LANGERHANS'S child. The director of the Hamburg Hospital gave an account of immunizing experiments on children. He says that four bottles of the No. 216 serum were used for immunizing children in the eye department; not only were no ill effects observed, but it might be confidently asserted that none existed. Thus the clinical communications also contradict the assumption that substances of strong toxic action were contained in the serum. On the contrary, the No. 216 serum has shown itself to be a preparation answering to all the tests at present exacted, and perfectly normal in its constitution."—*British Medical Journal*.

Still Fighting to Right the Wrong.—The Committee of the County Medical Association on the Relation of Physicians and Hospitals made the following report on June 15. The BULLETIN publishes it without comment, since it speaks for itself:

"The Committee on Relations of Physicians and Hospitals desires to report that, though it has used its best endeavors to secure a just balance of evidence in the hospital-patronage affair, yet the testimony given before our body has been rendered entirely by the profession and not by the colleges. The faculties have ignored our communications, and have kept strangely silent, yet the very fact of their casting honorary positions broadcast among those physicians who were unjustly removed from positions long and honorably filled is circumstantial evidence that injustice was done at the instigation of the colleges, and peace-offerings are now necessary. The faculties are to 'stand from under,' and let all the blame fall on the commissioners' shoulders.

"The campaign of the colleges is one of deception, and in order to make such a campaign successful it was necessary to insure no medical man being appointed a commissioner of charities, as the whole scheme would be very transparent to a physician. Several of the faculty waited upon the mayor and urged that 'no doctor should be a commissioner, as that would break up the harmony between the colleges and the board.' Thus having rendered deception less easy of discovery, they proceeded to hoodwink the mayor and the board—making many statements, which you have seen exposed, as perfectly ridiculous, by the medical journals.

"The latest plan is to give a 'sop' to complainants—for quieting purposes—and then to persuade the commissioners that the profession is satisfied. These sops are appointments as consulting physicians. Of course, as you all know, such an appointment is only a superannuation, and practically is of no value to anyone. But the sole idea seems to be to impress the commissioners with the thought that injustice has been righted—concealing the fact that appointees are not returned to their old places, but are expected to be satisfied with positions that exist only on paper.

"None of the members of the association who are connected with the teaching bodies have replied to the secretary's requests for an audience, or have in any way signified a willingness or ability to justify their positions toward the whole profession.

"We had hoped to give definite news from the Commissioners of Public Charities, but the following letter is all they think best to have embodied in this report:

JUNE 11, 1896.

By direction of the board I have to acknowledge the re-

ceipt of your letter of the 9th instant, and to inform you that this board is of the opinion that the questions under consideration are of such importance as to warrant careful and thorough examination and consideration, and that at present time they have nothing to communicate.

Yours truly,

H. G. WEAVER,

Secretary Board of Public Charities.

"The faculties or members thereof have been instrumental in carrying these affairs of great importance into the daily press. A petition has been sent to the mayor, a copy of which we have. This document is signed with 36 names, of which three only are physicians, the remainder being lawyers, clergymen, business men, etc. The statements in the aforesaid paper can be easily rebutted, as you are aware they have been torn in pieces by the medical press. Yet, to outsiders the names of the signers lent weight, even though one of them made the remark to the Board of Aldermen that 'petitions amount to nothing.' As evidence of the truth of his words we have only to call to mind the fact that a few weeks ago, in order to demonstrate that signers rarely or never read petitions understandingly, a reporter procured signatures of the principal men of this city to a request for 'finer weather and more sunlight on the elevated railroad.'

"We consider that the men who went to the mayor and objected to the appointment of any physician, those who went to the daily press for support, those who made unsupported statements about your committee, and those who circulated a petition among the laity not only violated professional ethics, but must have had a very weak case to conceive the necessity for such support. We believe that professional matters should be adjusted by the profession alone.

"One aim and purpose of your committee is to place the government of the medical services of the city hospitals in the hands of the profession at large; and to insure that nominations for positions shall be made by its representative societies, who shall also form an examining board for internes and who shall appoint men of known ability to hold clinics for the better education of medical men who may wish to avail themselves of such great opportunities. Of course we do not mean such clinics as are held by the college professors for students, but valuable clinics by practical men for practical men.

"We are confident that such an arrangement will give better satisfaction to the commissioners and to the public, better and more humane service to the poor, and the profession at large will have a chance to see hospital appointments go to some standard of ability, while medical 'pull'—pure and simple—will be a thing of the past. The colleges have actually claimed before the mayor and commissioners that they represent the profession, but if we can succeed in our cause the profession will be represented by this association in reality as it is in fact.

"We feel that the thanks of the whole association are due to the Commissioners of Charities for their unvarying and many courtesies, and we are relying on their endeavors to adjust this matter on its merits. We feel sure that they will finally reach a decision which will be just and satisfactory to the profession of New York city.

"DOUGLAS H. STEWART, M.D.,

"Cor. Secretary."

Coming Society Meetings.—American Ophthalmological Society, New London, Conn., July 15, 1896. S. B. ST. JOHN, M.D., secretary, Hartford, Conn.

Medical Society of West Virginia, at Wheeling, July. G. A. ASCHMAN, M. D., Wheeling, W. Va.

Army and Navy Items.—Captain PHILIP G. WALES, assistant surgeon, was relieved from temporary duty at Fort Monroe, Virginia, and ordered to return to his proper station, Fort McPherson, Georgia.

Leave of absence for one month, with permission to apply for an extension of one month, was granted Capt. W. FITZHUGH CARTER, assistant surgeon.

Surgeon R. WHITING was detached from the *Monterey*, ordered home, and granted three months' leave.

Surgeon C. T. HIBBETT was detached from the *Bennington*, and ordered to the *Independence*.

Surgeon H. T. PERCY was detached from Board of Examiners, Washington, D. C., July 1, and ordered to the *Monterey*.

Surgeon W. A. MCCLURG was ordered as member of Medical Examining Board, Washington, D. C.

Passed Assistant Surgeon J. W. BAKER was detached from Board of Examiners, New York, June 22, and ordered to the *Bennington*.

Passed Assistant Surgeon C. F. STOKES was ordered as recorder of Medical Examining Board, New York, June 22.

Surgeon A. C. RUSSELL was detached from Board of Medical Examiners, New York, July 5, and granted leave until August 7, with permission to go abroad.

Assistant Surgeon M. K. JOHNSON was detached from the *Franklin*, and ordered to the *New York*.

Assistant Surgeon F. C. COOK was detached from the *New York*, and ordered to treatment at Naval Hospital, New York.

Assistant Surgeons W. N. WHEELER and R. S. BLAKEMAN were ordered to instruction at Naval Laboratory, New York.

Passed Assistant Surgeon J. W. BAKER was ordered to delay reporting until July 18.

Personal.—Dr. E. P. HARMAN and Dr. E. L. HERGERT, assistants, have resigned from the staff of the Eastern District Hospital, Philadelphia. Dr. HARMAN is now in the Gouverneur Hospital, New York. Drs. SOUTHWOOD and HARNI have been appointed to succeed them.

At a special meeting of the Pathological Society of London, May 19, Profs. BACCELLI, KOCH, WELCH, and ZIEGLER were elected honorary members.

Dr. WM. M. HARSHA has been elected professor of operative and clinical surgery in the College of Physicians and Surgeons, Chicago, vice Dr. HENRY M. PALMER, deceased.

Dr. E. E. JOHNSON, of Pottstown, Pa., has been appointed surgeon of the SS. *Indiana*, of the International Navigation Company, plying between New York and Liverpool.

Dr. T. G. HYLAND has resigned as assistant surgeon of the Third Brigade of the New York State Militia.

Dr. WM. STEINACH succeeds the late Dr. WHEELER, on the medical staff of the Willard Hospital, Elmira, N. Y.

Obituary.—Dr. G. B. BLAKE, in Boulder, Colo., June 5. He was graduated from, and later became demonstrator of anatomy in, the medical department of the University of Colorado.—Dr. JOHN MCLEAN FLEMING, in Chicago, June 10. He was born in Stanley, Perthshire, Scotland, and was grad-

uated from Rush Medical College, Chicago, with the class of '71.—Dr. ANNA E. MORGAN, in Denver, Colo. She was graduated from the medical department of the University of Denver in 1890.—Dr. J. F. POTTS, in White Hall, Ill., June 8. He was graduated from Union College in 1865.—Dr. FRANCES O. DAY, in Blue Island, Ill. She was graduated from Woman's Medical College, Chicago, Ill., in 1884.—Dr. A. T. CLASON, in Danbury, Conn. He was graduated from the medical department of the University of the City of New York in 1866.—Dr. HERSCHEL V. MYERS, in Richmond, Ind., on June 15, aged 36 years. He was graduated from the Jefferson Medical College.—Dr. FRANK M. TEMPLE, in Fairview, Pa., on June 17, aged 46 years. He was graduated from the medical department of the Western Reserve College.—Dr. W. H. MCCORD, in Eagleville, Tenn., on June 14. He was graduated from the medical department of Tulane University in 1860.

PUBLISHERS' DEPARTMENT

INOCULATION OF CATTLE WITH TUBERCULIN

Tuberculin, as supplied by the Farbwerke vorm. Meister Lucius & Brüning, Hoechst-on-Main, can be kept for years unaltered, if stored in a cool place and not exposed to sunlight. If only a portion of the contents of a bottle is used for inoculation, the remainder, which must be carefully sealed up again, is quite good as long as no turbidity appears in the tuberculin.

For use it must be diluted with 0.5 per cent. carbolic water, in the proportion of 1 part tuberculin to 9 parts carbolic water. It is advisable to have a large quantity of carbolic water at hand, and to measure out from it as required the necessary amount to mix with the tuberculin by means of a small cylinder or pipette. (If, for instance, it is desired to inoculate a stable of 20 cows, 10 c.c. tuberculin and 90 c.c. 0.5 per cent. carbolic water are mixed together in a clean flask or medicine bottle, the mixture thoroughly shaken, and then poured into a clean glass or porcelain dish, from which 5 c.c. are taken at a time.)

The dose for a full-grown ox is 0.5 c.c., for young oxen up to two-year-olds 0.3 c.c., for calves 0.1 to 0.2 c.c.

For inoculation, either Koch or Pravaz syringes are recommended. The syringes must be disinfected before use. After each individual inoculation, the needle must be disinfected by laying in absolute alcohol. (If the syringe is washed out with absolute alcohol directly after using it for injection of tuberculin, the alcohol causes a deposit to be precipitated on the sides of the syringe which is very difficult to remove.)

Before inoculation, the body temperature of the animal must be ascertained and recorded. It is advisable to do this at least one day before inoculation, morning, midday, and evening, in order to determine the variation in temperature throughout the day.

The normal temperature for oxen is 38° to 39.5° C. (100.4° to 103.1° F.). Animals exhibiting a higher temperature should, in order to avoid false results, be excluded from inoculation and set aside until their temperature has fallen within the normal limits. VICTOR KOEHL & Co., 79 Murray street, N. Y., are sole agents for the United States.

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